BOUND BY
Carteret & Armstrong,
RALEIGH, N. C.

HEALTH SCIENCES LIBRARY
OF THE
UNIVERSITY OF NORTH CAROLINA

History Room

THE

MEDICAL JOURNAL

OF

NORTH CAROLINA.

VOL. I. & II.

PUBLISHED UNDER THE AUSPICES OF THE

STATE MEDICAL SOCIETY.

BY

EDWARD WARREN, M. D.,

EDITOR.

EDENTON, N. C.

1858—59.

DIVISION OF MEDICAL SCIENCES NLM

Digitized by the Internet Archive
in 2009 with funding from
North Carolina History of Health Digital Collection, an LSTA-funded NC ECHO digitization grant project

http://www.archive.org/details/medicaljournalof01medi

INDEX.

A

	Page
Address, J. G. Tull,	17
Asphyxia, Marshall Hall	60
Amylene, Girard	64
Amenorchœa, Bird	67
Arsenic, M. Lassaigne	80
Anasarco, Gintree	82
Aneurism, Fergusson	82
Abscess Mammary, Wilson	164
Abortion, Prophl. Treatment, Metsch,	166
Amputation, New Method, M. Maisonmenœ	173
Apoplectic Predisposition, M. Hall	236
Address by Satchwell, Warren	254
Asthma, "Virg. Med. Journal"	366
Abscesses, Chapaignac	373
Asphyxia, New Method of treating, Silvester	472
Aleen de in Emphelas	275

B

Bloodletting, T. L. Wright,	141
Bell, Benjamin, M. D., Opium and Belladonna	132
Balfour, G. W., M. D., Hematophobia	222
Bone, Artificial Production of	587

C

Convulsions, puerperal apoplectic, B. F. Fessenden	16
Calculus, Preston Hewitt	61
Curvature, Spinal, M. Piorry	62
Cæsarean Section, F. R. Owen	69
Copper, Poisoning by, Conizan	80
Cholera, Gudas	83
Croup, J. D. Shelton	84
Correspondents	95
Cutaneous Diseases, top. application, Gilbert	140
Cholera Infantum, J. L. Smith	148
Chloroform in Surgery, Skey	149
Chancre, "Med. and Surg. Reporter"	172
Chloroform on Heart	188

Chinoidine, N. Y. Surg. - - - - - - - - - 206
Cancerous tumour below tongue, Jno. Paul - - - 241
Caustic painless - - - - - - - - - - 249
Chloroform - - - - - - - - - - 268
Conjunctivitis, poke-root in - - - - - - 374
Convulsions infantile, Trousseau - - - - - - 451
Calculi of Hypertrophied Glands of Palate, - - - - 466
Convulsions, epileptic, Sequard - - - - - - 470
Capehart, W. R. - - - - - - - - 497
Cohoon, J. T. P. C., Vesico-Vag. Fistula - - - - 570
Cerebro-Spinal Meningitis, Summerell - - - - 349
Coke G. H., M. D. - - - - - - - - 127

D

Diseases of Franklin County, W. R. King, M. D. - 1—111
Dysmenorrhœa, - - - - - - - - - - 83
Dysentery, G. E. Elum - - - - - - - - 84
Diseases of Perquimans Co., Winslow - - - - - 101
Diseases of Children, Sugar in, Behrend & Lieber - - 239
Dislocation of Hipjoint - - - - - - - - 369
Dysmenorrhœa, Merrill - - - - - - - 379
Discharge from Uterus during Pregnancy, Capehart - - 439
Displacement of Cœcyx Sideways, - - - - - 464
Dental Surgery painless, Smith - - - 466

E

Essay, C. E. Johnson - - - - - - - - 34
Erysipelas, W. W. Balfour - - - - - - 58
Erysipelas, M. Anciaux, - - - - - - - 83
Editorials, &c., - - - - - 85, 196, 274, 389, 494, 601
Exchanges, - - - - - - - - - - 91
Epigenesis and Sterility, Cartwright - - - - - 525

F

Fever, Puerperal - - - - - - - - 71, 165
Fever, Intermittent, Coons - - - - - - - 83
Formulæ, Tilden & Co. - - - - - - - - 221
Fracture Thigh-bone, Syms - - - - - - - 250
Fever, Typhus, Upham - - - - - - - - 356
Fever, Intermittent, Quinia in, DaCosta - - - - 361
Fistula, Vesico-Vag., Bozeman - - - - - - 378
Fracture of Malar Bone, Waddell - - - - - 435
Fracture of Clevicle, New mode of Dressing in, - - - 463
Fistula, Vesico-Vag., Cohoon - - - - - - 570
Fessenden, B. F., Citrine Oint. - - - - - - 123

G

Glottis, Tubage of - - - - - 465

H

Headache, Symonds - - - - - - - - 43
Heat and Cold, Coulier - - - - - - - - 81
Hemorrhage, hemorrhoidal, M. Trousseau - - - - 82
Hemorrhage, Uterine, M. Dupierris - - - - - 83
Hernia, Scrotal, Coke - - - - - - - - 127
Hernia, Strangulated - - - - - - - - 168
Hematophobia, Balfour - - - - - - - - 224
Heart Sounds, Flint - - - - - - - - 232
Hydrocele, New Operation, M. Canon du Villard - - - 253
Hare-Lip, New Operation, Duke, - - - - - 375
Hanging, Phenomena observed in, Tewksbury - - - 467
Hernia, R. Gibbon - - - - - - - - 561
Howard, W. T., Pneumonia - - - - 305, 405, 509
Hernia, Operation for, in Children - - - - -

I

Intussusception, Tate - - - - - - - - 65
Infection, purulent, M. Turchetti - - - - - 83
Issue, First - - - - - - - - 95

J

Johnson, Dr. C. E., Essay on 19th Century - - - - 34
Johnson, Lithotrity - - - - - - - - 565

K

Kennedy, Therapeutical principles - - - - - 159
King, W. R., M. D. - - - - - - - - 111

L

Lithotomy, Pittman - - - - - - - - 11
Ligatures, Elastic - - - - - - - - 63
Lithotomy, Winslow - - - - - - - - 208
Labor, Shortening of, King - - - - - - 211
Leeches, Sterns, - - - - - - - - - 134
Lithotomy, Mott - - - - - - - - 461
Lankford, W. C., M. D. - - - - - - - 433
Lithotrity, Johnston - - - - - - - - 565
Letter, D. S. Waddell - - - - - - - 571
Liver, Sugar-forming, Function of - - - - - 597

M

Medical Association, Nat. - - - - - - 91
Medical Society, State - - - - - - - 96
Memorial to Legislature - - - - - - - 345
Meningitis, Summerell - - - - - - - 349
Milk, dispersing of, Iodid of Potas. for, Russel - - - 377

Medical and Physical Commentaries, Paine - - - - 446
Menstruation and Conception, Bischoff - - - - - 474

N.

Neuralgia, Declat. - - - - - - - - - 83
Do. - - - - - - - - - 84, 248
Nipples, Flat - - - - - - - - - 85
Nature and Art in Cure of Disease, Forbes - - - 441
Neuralgia, Hydrochlorate of Ammonia in, Brenchley - - 452
Nymphomania, Paine, R. S. - - - - - - - 569

O.

Ointment, Citrine, B. F. Fessenden - - - - - 123
Opium and Belladonna, B. Bell - - - - - 132
Opium and Quinia, Antagonism, Gubler - - - 237
Ophthalmia, De Coude - - - - - 371

P.

Prolapsus Uteri, M. Desgranges - - - - - 68
Poisoning by Opium, N. L. Folsom - - - - 78
Phthisis, Parola and Rossi - - - - - - 84
Pregnancy, Signs of, Eddy - - - - - 163
Poisoning, Ol. Tansy - - - - - - 164
Pneumonia, Malarial, (Review) Howard - 305-404-509
Physical Signs, New, Corson - - - - - 366
Poison Oak, Wierzlicki - - - - - - 454
Placental Site after Delivery, Robin - - - 483
Payne, Nymphomania - - - - 569

Q.

Quinine and Opium, Antagonism - - - 132
Quinine in Typhoid Fever - - - 149

R.

Rheumatism, Acute, Campbell - - - - 82
Rheumatism, Cerebral, Lebert - - - - - 344
Rational Medicine, Bigelow - - - - 359
Rheumatism, Skoda - - - - - - - 460

S.

Surgical Operations, Broadbent - - - - - 62
Strictures of Urethea, Thielman - - - - 66
Strychnia Andidote, Bouchardat - - - - 79
Supra-renal Capsules, E. Brown Sequard - - - 81
Scarlatina, Babington and Hughes - - - - 82
Suppuration, M. Ozaman - - - - - 84

Subscribers - - - - - - - - - - 94
Sutures Silver, Simms - - - - - - - - - - 128
Sensibility, Sequard - - - - - - - - - - 186
Suppression of Milk, Belladonna in, Sayfforth - - - 263
Speculum, "Boston Medical and Surgical Journal" - - - 264
Spinal Irritation, Inman - - - - - - - - - 266
Strictures, Cauterization of, Raw - - - - - - - - 374
Superfetation, Sankford - - - - - - - - - 434
Summerell, J. J. - - - - - - - - - - 349
Spleen, Observations on, G. Dowell - - - - - - 575

T.

Tuberculosis, Churchill - - - - - - - - - 56
Twins - - - - - - - - - - - - 71
Tull's Address - - - - - - - - - - - 93
Typhoid Fever, Quinine in - - - - - - - - - 149
Therapeutics - - - - - - - - - - - 176
" Record - - - - - 193, 270, 380, 484
" Principles, Kennedy, - - - - - - - - 459
Tull, J. G. - - - - - - - - - - - 17

U.

Urine, Incontinence of, - - - - - - - - - 82
Urine, Suppression of, M. B. Beers - - - - - - 84
Uterus, Smith - - - - - - - - - - - 156
Uterine Hemorrhage, Alcoholic Stimulant in, Pidcock - - 161
Urtica, Tr. of, in Burns and Scalds, "Am. Med. Monthly" - 247
Uraemia, Sitzman - - - - - - - - - - 265
Uterus, Contractions of, Christie - - - - - - - 477
Urethra, Treatment of Affections of. - - - - - - 591

V

Vaginitis, M. Thiry - - - - - - - - - - 70
Venom of Serpents, J. Gilman - - - - - - - - 76
Vomiting, M. Lami - - - - - - - - - - 82
Variations of Color in Venous Blood, Bernard - - 116, 338
Ver. Viride, Warren - - - - - - - - - - 213
Vomiting in Pregnancy, Pepsin in, Gros - - - - - 376
Voice and Cough, trans. by E. Warren - - - - - 436
Ver. Viride, Rooker, - - - - - - - - - 448

W

Wounds, Anatomical, M. Nonat - - - - - - - - 82
Warts, "N. O. Med. News and Hos. Gazette - - - - - 171
Watson's Practice - - - - - - - - - - 357
Wilson's Anatomy - - - - - - - - - - 358
Winslow, Dr. C. - - - - - - - - 101, 208
Warren, Edward M.D. - - - - - - - 338, 436, &c.
Wysing, R. M.D. - - - - - - - - - 206

NORTH CAROLINA

MEDICAL JOURNAL.

Vol. I. AUGUST, 1858. No. 1.

ORIGINAL COMMUNICATIONS AND TRANSLATIONS

DISEASES OF FRANKLIN COUNTY.

A Report on the Diseases of Franklin County, Submitted to the Medical Society of N. C., at its late Meeting, by William R. King, M. D.

In a report of the diseases of a section of country so renowned for health as that in which I reside, one would scarcely expect to find anything instructive or interesting. Hence, the following statistics will, necessarily, be confined to a detail of stale or common place matter, except in a few cases of striking peculiarities, which occurred independent of local causes or epidemic influences.

Although the past year was one of unusual health, we were visited during the spring and summer months with Dysentery, Diarrhœa and Cholera Infantum. In the months of May, June and July, the first of the above-mentioned diseases prevailed to some extent; but there was nothing in its nature of a malignant character or fatal tendency. The cases that came under my observation were strongly marked by hepatic disorder—indicated by a slightly jaundiced skin, and light clay-colored stooles, preceding those of mucous and blood. Most of the cases were accompanied with a good deal of fever.

The treatment which appeared to be the most successful, consisted in the exhibition of calomel or blue mass, combined with

Dover's powder in various proportions, and in covering the whole abdomen with large mustard cataplasms. After the bowels were slowly, but thoroughly evacuated by this plan, the various preparations of opium were at certain intervals given, both by the mouth and by injection, I have observed that the early exhibition of mercurials, especially in cases of much febrile excitement, was generally followed by a speedy improvement in all the symptoms. In the exhibition of the preparations of opium, either by the mouth or rectum, where dysentric discharges of a muco-sanguineous character continue, I always prefer large doses, in order to procure rest and quietude, and as a local effect, to allay enteric pain and irritation.

Whenever it assumed an obstinate character—refusing to yield to the above treatment, the calomel or blue mass was continued in small doses, in combination with the Dover's powder, or some other preparation of opium, with a continuance of the stimulating applications to the abdomen. Repeated blistering of the abdomen was occasionally resorted to, with good results.

During the prevalence of this disease in certain localities, cases sometimes appear presenting strong symptoms of congestion of the abdomenal viscera, with great depression of the vital powers, such as pain in the bowels, nausea, weak and frequent pulse, temperature of the surface greatly diminished, with cold extremities, and an intensely red tongue—a condition indicative of imminent danger. In such cases, instead of the calomel or blue mass, castor oil combined with Ol. Terebinthinæ is employed to gently evacuate the bowels, the latter being continued in small doses alone after its exhibition in combination with the former. The *whole* front surface of the abdomen is covered with a large blister. If pain and dysenteric discharges continue after the bowels have been evacuated, large anodyne injections are freely employed, while ten-drop doses of the Ol. Terebinthinæ in form of emulsion are given internally every three or four hours. Under this plan of treatment, I have known many, apparently desperate cases, to recover.

When the disease assumed a chronic form, which rarely occured, the remedies usually recommended in the works on the practice of physic were employed. There were some cases, in

which the patients, after being able to walk out and attend to business, were very much annoyed with frequent calls to stool, accompanied with considerable tenesmus. To relieve these, the Balsam Copavia, as prepared for ordinary cases of Gonnorrhœa, was given with very prompt relief. Cholera Infantum prevailed to some extent during the months of July and August, and in some neighborhoods with severity. The milder form of this disease—its symptoms and treatment are undeserving of special notice. But there were a few cases under my care, characterized by well developed symptoms of meningeal inflammation, which I will briefly notice. Along with the usual symptoms of the disease, generally about the 10th or 12th day after the attack, symptoms of cerebral disturbance began to appear—such as morbid irritability, sleep disturbed by sudden cries and startings ; the eyes generally half closed, with the globes turned upwards ; small, tense and frequent pulse ; skin harsh and dry ; tongue dry and red in the centre ; lips sometimes inflamed, cracked and often bleeding ; tympanitis, spasmodic twitchings of forearms and hands, with the thumbs often compressed against the palms.

The treatment adopted in such cases, was mercury, carried to gentle ptyalism, ice-water constantly applied to the head, occasional warm salt-baths, mustard foot-baths, frictions to the surface, and blisters with the Vesicating Tissue plaster to the temples and behind the ears, or to the nape of the neck. Ptyalism was induced by the exhibition of calomel and ipecac in minute doses, combined with the acetate of lead. This plan of treatment proved successful in all cases that came under my observation.

One case presented a peculiarity to which I will give a passing notice. The patient, one year old, after being safely conducted through the severer stages of the disease, was suddenly attacked with an intensely red and circumscribed blush, or inflammation, on the right cheek, and also on the right forearm, extending from the elbow to the wrist. But as this phenomenon was not followed by any material change in the patient's condition, I regarded it unworthy of any particular attention. On the following day, however, I was hastily called to visit the patient. On my arrival I was informed that it had just recovered from severe spasms, which followed the sudden disappearance of

the eruption. Upon making an examination I discovered it had disappeared. The forearms and hands were then in a state of rigid spasm, with the thumbs pressing firmly against the palms. There was a very peculiar expression of wildness of the eyes, and when directed to any particular object, the patient would stare with wonder. Pupil moderately dilated. Pulse fuller than formerly, but less frequent. The discharges from the bowels much improved. The patient remained in this condition about 48 hours with scarcely an hour's sleep, and without uttering any cries or manifesting any signs of pain or impatience, although it was subjected to much handling in the bestowal of the varied treatment offices which it required. The case was treated with ice to the head, stimulating pediluvia, blisters to the temples and nucha; internally calomel and ipecac in small doses, combined with p. chalk. About 36 hours after the blisters were removed a most intense inflammation attacked the blistered surface on the nape of the neck, to the great distress of the patient, and which caused it to manifest the first signs of impatience. A speedy disappearance of all cerebral symptoms followed this inflammation. The patient slowly recovered.

Several other cases of long standing—reduced to the most extreme degree of emaciation, accompanied with great irritability of stomach, rejecting almost every article of food of the blandest nature—recovered under a perpetual irritation or inflammation to the surface of the abdomen, warm baths, frictions to the surface, and a perseverance in the internal exhibition of the Ol. Terebinthinæ, in the form of emulsion.

Of Bilious Intermittents and Remittents we had comparatively very few cases. Those that did occur were of so mild a form as to require but very little attention from the physician.

Of Typhoid Fever, we had also but very few cases. The treatment adopted by the physicians of this section, in the disease, consists mainly of tonics, stimulants, and anodyne-diaphoretics. Where much irritability of bowels exists, with weak and frequent pulse, subsultus, morbid vigilance, or low muttering delirium, we rely mainly on large doses of some form of opium, Ol. Terebinthinæ, and the alcoholic stimulants, as the case requires. When symptoms of cerebral congestion or engorgement are dis-

covered, cups and leeches to the temples and occiput, and cold applications to the head are resorted to. My experience teaches me, that in the management of this disease, no part of the treatment demands so much the attention as the controlling of morbid vigilance and general nervous disorder. The patient must rest, and to effect this object, where there are no symptoms of cerebral congestion or engorgement to contra-indicate their employment, the preparations of opium are required. In many cases from 15 to 20 grains of the Dover's powder have been administered several times during the night and day, for several days consecutively, and whenever sound and natural sleep was thus secured, I have always observed a decided improvement in the patient's condition.

In those cases that appear to be in a comatose state, with mouth and eyes half closed, with irregular breathing, it does not require very close observation to discover symptoms of a perturbed state of the nervous system,—such as subsultus tendinum, catching or picking at imaginary objects, and muttering of half-finished words or sentences. In such cases, accompanied with a weak and frequent pulse and cool extremities, a favorite prescription with me is the Dover's powders, as above recommended, and the Ol. Terebinthinæ in ten-drop doses every three or four hours. The alchoholic stimulants are given as circumstances require. A number of cases might here be cited to prove the good effects of this plan of treatment, but as a lengthy detail would necessarily follow, I forbear.

Pneumonia: What was said in regard to the prevalence of typhoid fever, applies also to this disease—having had less of it than usual during the past year.

In this immediate neighborhood, the cases were of the well-marked inflammatory form, such as occur in the practice of every physician, and generally proving very amenable to treatment. I have for many years observed that those individuals who suffer from attacks of intermittent fever during the autumnal months, are more susceptible to this disease the following winter and spring. In such cases, the existence of much hepatic derangement along with the pulmonic inflammation, has appeared to the minds of some very distinguished physicians as sufficient grounds

to entitle it to a distinct appellation, and a very nice diagnosis has been drawn between it and the ordinary form of the disease. But I am unprepared, with my present limited store of pathological knowledge, to acquiesce in this opinion. The disease as it occurs in my practice almost always presents the same characteristics, and progresses through the same phases with striking order and precision. The addition of biliary disorder to the pneumonic inflammation, I have always ascribed to the susceptibility of the liver to a derangement of its functions from any great disturbance of the economy, caused by previous attacks of autumnal intermittent or remittent fever. Nor does this complication, so far as my observation extends, assume a more threatening aspect or render it more difficult to manage. The only variation from the ordinary treatment, being the more liberal exhibition of calomel, and the employment of the sulphate of quinine.

From the existence of certain facts in connexion with the cause of pneumonia, the matter appears to me to be involved in mystery. I am aware that the action of cold upon the human system is almost universally acknowledged to be the chief agent in producing this disease; but from the fact of its prevalence amid the chilling blasts of winter, the genial warmth of spring, and fervid heat of summer, a reasonable doubt might be indulged, whether cold is the sole cause of its occurrence. The most inveterate cases I ever was called to treat, occurred in the months of May and June, 1856. The winter of 1856-7 was one of unusual severity, and the following spring remarkable for its backwardness and atmospheric alternations, yet we had less of pneumonia during those seasons than usual. During the prevalence of the disease in an epidemic or endemic form, in certain districts, we sometimes witness a manifest difference in the form in which it appears in different families living very near each other —being very mild in some, in others very malignant, while others escape altogether—all having been exposed alike to the action of low temperature and atmospheric vicissitudes. Reasoning upon the hypothesis that cold is the cause of pneumonia, it is very difficult to give a satisfactory reason for this apparent waywardness in the prevalence of the disease; nor have I ever been able to trace any marked dissimilarity between the epidemic

form and sporadic cases which are occasionally met with. All physicians have observed that the disease as frequently attacks those individuals who keep closely housed, as those who are constantly exposed to the inclemency of the weather. We sometimes wonder at the comparatively few cases which occur among the hundreds of poor people and negroes in every community, who are impelled, either by necessity or obedience to masters, to constant exposure to the hardships of winter. It very often occurs in early infancy, and in very young children securely kept free from exposure in warm chambers. The valetudinarian, wrapped in a super-abundance of clothing of the warmest material, upon whom a breath of cold air scarcely ever falls, is as liable to this disease as the out-door laborer, poorly clad, and constantly exposed to the vicissitudes of the weather.

If the action of low temperature upon the surface and the delicate lining of the air cells of the lungs be the cause of pneumonia in those subjects who have been exposed to it, the question forcibly suggests itself, to what agency shall we ascribe its occurrence in those who have not in anywise been exposed to this reputed cause? There must therefore be some other principle in the atmosphere, which predisposes the human system to this disease.

Where we see it prevailing in the same neighborhoods, nay, in the same families with other inflammatory affections—such as catarrhal fever, cynanche tonsillaris, congestion of the brain, erysipelas, etc., is it not fair to infer that all spring from the same cause? I have noticed this occurrence very often in my practice, and I am sure the same has been noticed by most physicians.

In the year 1855 an epidemic inflammatory fever appeared in the family of one of our wealthy farmers, which speedily swept off several *likely* negroes. It prevailed in the form of sore throat, catarrhal fever, inflammation of the internal ear and circumjacent parts, congestion of the brain, and pneumonia. The disease ran its course rapidly;—and in those cases where the internal organs were attacked, speedily proved fatal, unless active antiphlogistic measures were early employed. (A fact worthy of notice, in those cases where venesection was resorted to, was the remarkable control which the measure had over arterial excite-

ment—the pulse rapidly yielding, and often becoming almost extinct at the wrist before 16 dr. blood were drawn.)

During the prevalence of an epidemic of a similar character in Warren County some years ago, I have been informed by physicians of that county, that the dermoid, cellular, and mucous tissues, were in turn attacked with inflammation; giving rise to cartarrhal fever, sore throat, erysipelas, and pneumonia. I have recently attended the family of a gentleman of this county, in which I found erysipelas and congestive pneumonia prevailing together among his children. But this is no uncommon occurrence, for the frequent prevalence of this disease with many of the eruptive fevers, especially erysipelas, is well known to all physicians, and can be explained only on the grounds that they arise from the same cause, but modified by the tissue or organ attacked.

A number of other facts might be cited to show that cold and atmospheric vicissitudes are insufficient for a "full and satisfactory explanation of the prevalence of this disease," in all seasons of the year. Therefore, it is but reasonable to conclude, that there must be some other principle, generated in some unknown way, and pervading the atmosphere of certain localities, which by its action on the human system, independent of any other agency, causes certain inflammatory affections of the various tissues.

Treatment : I will submit in a very concise manner, the plan of treatment which I have found to be most successful in this disease, although I am sure it does not differ materially from that generally adopted by the profession.

In young adults, and in middle-aged subjects, whose constitutions have not been impaired by previous ill health, where all the symptoms are well developed—such as pain in the chest, hurried breathing, cough, expectoration of frothy mucus, frequent, full or tense and corded pulse, and furred tongue—blood letting is at once adopted, and carried sufficiently far to make a decided impression on the pulse. I have often known the pulse to fall under the operation from 120 to 90 beats in the minute, with a corresponding improvement in all the other symptoms. After this, a full dose of calomel, followed in due time by castor oil or ep.

salts, in order to purge actively. If, after the employment of these means, there is not a manifest improvement in all the symptoms, blood letting is again resorted to; but if a doubt should arise in regard to the propriety of the operation, local depletion by cups and deep scarifications are substituted. However, the pulse being a very sure guide in deciding on the propriety of bloodletting, there is not much probability of erring in this respect, so long as it is closely observed.

In the use of the above antiphlogistic means, there are bounds which must not be overleaped. We cannot expect to cure the disease at too great a sacrifice of the patients strength. Remains of inflammatory engorgement will still exist in the lungs, which should be overcome by milder measures. For this purpose there is no remedy within my knowledge that equals calomel and ipecacuanha. Two or three grains of the former to one of the latter are given every two or three hours, until 5 to 6 doses are taken, and then suspended for several hours, to be resumed as circumstances require. If this prescription should disturb the bowels, the Dover's powder may be continued with it, and substituted for the ipecac. The arterial sedatives, especially the nitrate of potash and the emetic tartar, are also given in combination at this stage of the disease, as circumstances require. The tincture of the veratrum viride is highly extolled by Dr. Norwood, of South Carolina, as a remedy in pneumonia, although I have never given it a trial; but being so well sustained by testimonials from so many eminent members of the profession, south, certainly entitles it to favorable consideration. During the prevalence of pneumonia, we sometimes meet with cases with short and hurried breathing, expectoration of bloody froth, great pain and oppression in the chest, anxious countenance, pallor of surface, cool extremities, and a weak and frequent pulse; all of which are indicative of the congestive form of this disease. In such cases, blood letting would appear to be a hazardous remedy; but where called early, in attacks of the kind, it may be advantageously employed. Whenever I have adopted it under such circumstances, I invariably keep the finger on the pulse, and have always found that, under the operation, it increased in fulness and diminished in frequency, with very great relief to pain

and oppression in the chest. The subsequent treatment was the same as that adopted in the other form of the disease. In some cases we sometimes discover very decided remissions in the fever during the forenoon of each day, especially in those where much billious disorder exists. During these remissions the sulphate of quinine is employed advantageously. When any form of the disease proves rebellious to the above treatment and becomes protracted, the calomel with ipecac, or Dover's powder, is continued as the case requires, and carried if necessary to gentle ptyalism; at the same time a large blister is applied to some portion of the chest—governed mainly by the seat of pain as to its location.

Where cases of a typhoid character appear, the above antiphlogistic measures are contra-indicated, and an opposite course, such as we find recommended in all approved works on the practice of physic, is adopted.

In the aged and infirm, and in those cases where the vital powers seemed to be overwhelmed by the violence of the attack, showing signs of great debility, the stimulating and tonic plan is resorted to, and varied according to circumstances.

Should the disease run into the chronic form, accompanied with frequent pulse, alterative doses of blue pill given at night, counter-irritation over the chest, with a succession of blisters, tartar emetic ointment, or croton oil liniament, and a free use of the cold infusion of wild cherry bark, is the plan which I have found the most successful.

Mania.—One case of mania occurred in a young negro woman which, from possessing some peculiar features, I will briefly notice. While convalescing from typhoid fever, the patient showed signs of mental aberration, to which the attention of the family physician was called. She did not, however, improve under his prescription. Several days thereafter, during his absence, I was requested to visit her. I found her sitting before the fire looking very cheerful, and quite talkative; very soon, however, she became restive, and manifested much mental excitement. Her pulse was rather small and frequent, tongue slightly furred, skin natural. She slept very little during the night; frequently wandering about the room, as if in search of something. She

complained of much debility; and when made to walk, her gait was feeble and tottering. She had been kept upon a very spare diet during her sickness, which had not been increased at all, up to the period of my visit. A blister was applied to the nape of the neck, and alterative doses of blue mass were given internally. After trying this plan of treatment for ten or twelve days, I was unable to discover any improvement in her condition. In fact I thought that her mental derangement had somewhat increased. At this visit I remained with the patient longer than usual, carefully watching her symptoms. I discovered that her chief concern was about what she should eat, frequently enquiring of those around her whether they had certain articles of food; and when she was assured that her wishes should be gratified, manifested much pleasure and satisfaction. While observing this state of things, the question arose in my mind, whether this intense craving for food, and the debility of the general system, which would naturally ensue from its being so long withheld from her during convalescence from protracted sickness, might not so debilitate the brain as to pervert its healthy functions,—acting, in this respect, similar to the withdrawal of alcoholic stimulants, in causing delirium tremens. This view of the case appearing to my mind so very plausible, I ordered all medicines to be suspended, and a generous meal of such articles of diet as she mostly craved, to be allowed her at stated periods. She recovered entirely under this treatment in ten or twelve days, requiring no medicine during that period, and is now in the enjoyment of her usual health.

(To be continued.)

REMOVAL OF A LARGE CALCULUS FROM THE BLADDER OF A BOY AGED THIRTEEN YEARS,

By N. J. Pittman, M. D., Tarboro, N. C.

The subject of this notice, (Jacob, a slave), had symptoms of stone in the bladder from early infancy. When he came under our care in the early part of May last, we found him a mere wreck, with hectic fever, chronic diarrhœa, incontinence of urine, purulent discharge from the bladder, prolapsed rectum, and bad

digestion. Upon exploring the bladder we readily detected a calculus, but could not satisfactorily ascertain its size. We concluded, however, to remove it as soon as the constitutional disturbance could be a little corrected, and the patient somewhat built up. This we found no easy task.

On the morning of the first of June last, we considered the patient sufficiently improved to undergo the operation of Lithotomy with some assurance of success; accordingly at nine o'clock A. M., we proceded to perform the lateral operation as directed by Liston. No difficulty presented itself in reaching the stone, but in attempting to extract it, we found it impossible to seize it through the aperture made in the prostate, even when freely dilated with the finger, as advised by Mr. Erichsen, of University College, London. The right lobe of the prostate was then incised by a probe-pointed bistoury, (with much care), to as great an extent as we considered justifiable; but on making another effort to disembarrass our patient of the calculus, we were still unsuccessful. Nothing was left us now but to crush the stone through the incision, or to resort to the suprapubic operation. Under existing circumstances, we determined on the former, although Mr. Erichsen tells us this is "a very hazardous procedure." The irritation which would necessarily be produced by the presence of the fragments of stone, and by the unavoidable difficulty and delay of clearing them out of the viscus, would probably be fatal to the patient. Again we are told, that the aperture for the removal of a large calculus is far more fatal than that for the extraction of a small one, which doubtless results from the injury inflicted on the parts by severe and perhaps, protracted efforts at extraction of a calculus through an aperture of insufficient size. Here the Surgeon is placed between the alternatives of cutting beyond the prostate, and thus occasioning urinary infiltration, and of bruising or lacerating the parts by limiting his incision to the margin of the gland. With these difficulties before us, and having failed to extract the calculus after exerting *due* force, we resolved, with the approbation of six or eight Medical gentlemen, to crush the stone through the incision. This we succeeded in doing with considerable effort by means of large, strong forceps, &c. The fragments

were then removed with the ordinary lithotomy forceps, the scoop, finger, and the free use of tepid water. Having satisfied ourselves that none of the concretion was left in the bladder, or wound, a gum-elastic catheter was then inserted, and made secure, and the patient placed in bed,—having been on the table forty minutes. No anaesthetic was used. The patient being somewhat exhausted, Port wine and black drop, were freely administered until reaction ensued,—which was within an hour. Two or three ounces of blood only were lost; and upon collecting as many of the fragments of the calculus as possible, we found the weight to be one ounce and a half—less a few grains. The stone was almost perfectly round, and of the lithic acid variety, having phosphatic incrustations with a rough surface.

June 1.—At 8 o'clock P. M., with the urine passing through the catheter, the pulse feeble and frequent, the skin cool, and the patient restless and sleepless; we ordered Port wine and ten drops of black drop—to be repeated if necessary.

June 2.—The boy is thirsty, pulse 130, and skin warm. Allowed ice water *ad libitum* and a little chicken broth. During the afternoon, much heat of skin, tongue dry and coated, urine scanty, still passing through the catheter, wound tumefied. At ten o'clock P. M., delirious, skin hot and dry, abdomen enlarged and tympanitic, thirst urgent, and tongue dry. Ordered ten grains of calomel, fifteen grains of rhubarb with twenty-five drops of turpentine, fomentations to abdomen, ice water freely as drink, and the general sponging with cold vinegar and water. The patient seemed to be ill at ease throughout the night, and slept none.

June 3.—His condition seems a little improved; no action from his bowels, pulse 125, and not so much heat of skin. Ordered enemata of warm water—to be repeated until the cal. et rheum operates—to be followed by calomel and Dover's powder, five grains of each every third hour. During the afternoon, his bowels were freely moved, after which there was quite an amelioration of all unpleasant symptoms. At nine o'clock P. M. suspended cal. and Dov. powder, and ordered black drop and spirits of turpentine, and emolient poultices. He slept four hours during the night.

June 4.—Looks bright, and expresses himself as better. Pulse 110 ; slightly ptyalised, bowels moved freely, some hemorrhage during the night, urine is more abundant and clear, tongue better. Gave chicken broth and rice, which he relished ; withdrew the catheter, and bathed the incision frequently with cold water.

June 5.—Slept well without an opiate, and is anxious to eat. Allowed milk and bread. Pulse 100; abdomen natural, wound a little tumefied, otherwise looking well. During the afternoon found the urine passing freely ; changes his position without assistance.

June 6.—Doing well ; pulse 90, tongue moist and cleaning, desires food, skin natural. Allowed a more generous diet.

June 7.—Continues to improve. Appetite good, is cheerful, thinks he will recover, though the wound is more tumefied. Introduced a probe and evacuated a little matter ; much of the urine passes by the urethra. After this no untoward symptom occurred, and the patient made a rapid and satisfactory recovery and was sent home, (to a neighboring county, Halifax,) on the 20th of June, with full power to retain his urine, and with every promise of becoming a stout and healthy lad.

Remarks.—The difficulty in extracting the stone in this case was doubtless due to the form of the concretion, which was almost perfectly round. Had it been oblong or flattened, we think it probable it might have been removed unbroken, even without incising the right lobe of the prostate, as we find several cases in the reports of the London Hospitals, in which calculi weighing $1\frac{1}{2}$ oz., $1\frac{3}{4}$ oz. and even 2 oz., were taken from the bladder, by the lateral operation, of boys not older than the subject of this notice.

We find similar cases of flattened, ovoidal and oblong calculi reported by American authors. Among them the case detailed in Dr. Gross' work on the Urinary Organs, in which "the calculus weighed an ounce and three quarters, and was of a flattened and cylindrical shape," patient aged 12 years.

Eighteen months since, we removed one without difficulty, of a cylindrical shape, nearly two inches long and half an inch in diameter, from a boy only six years of age.

We have never used the gorget or Lithotome Caché in any of our cases, preferring the simple knife used by the British and many American surgeons.

At this time the boy Jacob is healthy, and grows rapidly, having never suffered from any trouble of the urinary passages since he passed from under our care in June last. He now retains his urine well, which he was unable to do before the operation.

NOTE BY THE EDITOR.

The above case is one of much interest, and we feel under many obligations to the able and excellent gentleman who has reported it. He states with great clearness the difficulty of deciding upon the course to be pursued when the calculus is of such a size as to render its extraction a matter of great labor and trouble. And as a means of throwing some light upon the subject, we have taken the trouble to collect the following from the numerous instances in which stones of more than ordinary size were removed without serious detriment to the patient. Sir Ashley Cooper mentions having extracted one weighing eight oz.: Dr. Dudley, of Lexington, Kentucky, removed from a youth only eighteen years of age, a calculus which weighed nine oz. and was 11 ins. in its greatest circumference, and 3 ins. in its smallest diameter: Ambrose Paré relates the case of a confectioner, whose stone weighed nine ounces, and was $3\frac{1}{2}$ ins. in diameter: Prof. Gross, in his great work on the Urinary Organs, gives many instances of the removal of stones of a very large size: E. K. Parsons, of Brighton, England, took from a female child of only five years, a stone which weighed 4 dr. and 32 gr.: Prof. W. H. Van Buren removed a calculus from a young man, the nucleus of which was a slate pencil, which weighed nearly 4 oz., and was $2\frac{3}{4}$ ins. in length, with a corresponding thickness. The concluding remark of our friend, may perhaps furnish the key to the difficulty, for in neglecting to employ the lithotome, he discards the operation of Dupuytren, which, in such cases as he has described, is incomparably the best known to the Profession. *Success* is however the great test in surgery—and the wisdom of the course pursued in this instance, is demonstrated by the recovery of the patient.

A CASE OF PUERPERAL APOPLECTIC CONVULSIONS,

With Spontaneous Expulsion of the Fœtus after Death.

By Benjamin F. Fessenden, M. D., Plymouth, N. C.

June 2, 1848.—I was called to Mrs. H——, a woman of medium stature, rather robust, aged thirty-one years. This was her third pregnancy; in the two first labours she did well, they were natural and terminated within the usual period. She had been in good health, but complained for the last month of headache, or a *bad feeling* about that organ. The day before I saw her, she complained of severe headache, and had a spell of blindness of short duration. At 8 o'clock P. M., she had symptoms of labor, being about the completion of her term. Her husband informed me that she was seized with violent convulsions about 10 o'clock, and that they had continued, with but slight intermissions, up to the moment of my arrival.

Owing to the distance from me, I did not see the patient until about 5 o'clock A. M., June 3, I then found her in a supine position, continually convulsed, every feature and gesture distorted, respiration attended with a hissing sound, frothing at the mouth, and with each paroxysm lasting about ten minutes; after which she sank into a stertorous sleep. She was insensible, exhibiting no signs of consciousness or feeling; her pulse was full, hard and slow; the pupils of her eyes were dilated and insensible to light; her bowels were confined, and there was no uterine action during the time I was with her—if there had been any they were entirely suspended.

Treatment of the Case.—I immediately bled her, allowing the blood to flow until it made a decided impression on the pulse. Gave her twelve grains of calomel, to be followed by a wine-glassful of black draft every hour, until it operated on the bowels; and also recommended enementa of infusion of senna, sulphate of magnesia and ol. terebinth. twelve ounces at a time, to be repeated until the bowels were thoroughly moved; with cold applications to the head. At 10 A. M., I sent for Dr. W. W. Ward, in consultation. When he arrived about 2 o'clock P. M. there was no change in the condition of the patient; there had been no action from her bowels, and the enemas (three in number) were

all retained. Upon consultation we applied cups to the temples and back of neck, blisters to back of neck and thighs, and gave two drops of ol. tiglii. On examination we found the os uteri still undilated and hard, and with no perceptible progress of the labor. She died about 6 o'clock P. M. The corpse was dressed as usual for the grave; and the day after, when about to put her in the coffin, the child was found delivered. At what time this spontaneous action of the womb took place, I had no accurate means of knowing. On inquiry, I learned from those who were sitting up with the corpse, that about six or eight hours after it was dressed, there was an agitation or movement of the body, accompanied by a strange sound, which somewhat startled them at the time, but that attributing it to their imaginations, they thought no more of the matter until the discovery of the child. I suppose the expulsion must have taken place at that time.

AN ADDRESS DELIVERED BEFORE THE STATE MEDICAL SOCIETY,

By J. Graham Tull, M. D., of New Berne, N. C.

Mr. President and Gentlemen of the Medical Society :—The origin of Medicine dates back to the most remote antiquity, and was probably co-eval with the creation, or rather more strictly speaking, with the fall of man; originated in his wants and necessities, and was at its commencement a very imperfect art. If we adopt rigorously the metaphysical distinction established between the sciences and arts—if we keep in view only the result aimed at by the Physician—the practical end of all the knowledge which he should possess in order to obtain this result, we should say that medicine is an art, and would be then a system or collection of precepts and of rules, the objects of which would be to preserve the health of man and to cure or treat his diseases; a system founded on the various sciences, the subject of which is the human system.

The medical is not like the other arts; it is different from those even whose elevated object approaches the nearest to it; for whilst the sciences on which it is based, pursue separately their

progressive march, the medical sciences, those which furnish the general observations and ideas whence are deduced the precepts of the art of the Physician, are generally so intimately bound to this art that they seem to form an indivisible part of it, and, are never studied independently of the applications afforded by them—and these applications follow in some sort, step by step, their progress ; such are particularly pathology and therapeutics. These sciences are so important, that they seem, by themselves, to constitute Medicine, which is consequently defined *the science of diseases and their treatment.*

Medicine is therefore neither a science nor an art, separately. Under this denomination should be comprised all the branches of the science which studies the human organization in its different modes of existence, in its physiological and pathological state, in the different influences exerted over it, and the diverse systems of rules and operations whose object is the preservation of health and the treatment and cure of disease. It is a compound of all the sciences, whose object is to teach the art of the practitioner—it is the science of sciences, and holds the same relative position to all the collateral sciences that the Composite order in architecture holds to the Ionic, Doric, Corinthian, &c.; all the sciences, Mathematics, Chemistry, Botany, Geology, Natural, Moral, and Mental Philosophy—in fact, each and every one may be considered as only accessory to that of Medicine—as her handmaids.

Medicine is, at the present day, called a progressive science, and scarcely an invention or improvement has been or can be made in any of the branches, without contributing to its advancement ; and in proportion as civilization extends, and the higher orders of literature, as well as the sciences, advance—the wants of man increase with his intelligence and refinement—the articles of luxury multiply—diseases become diversified, the domains of botany and chemistry supply new remedies, and the art of treating disease—Therapeutics becomes more ennobled and extended, and at the same time, more rational and certain.

The science of Medicine has been progressing steadily ; has advanced by successive developments, finding in every age devoted followers, who have left not only imperishable names to

posterity, but have added another stone to the beautiful temple that has been so long in process of erection, and which, although still unfinished, yet progresses under the hands of its different and successive architects, preserves the elegant harmony of all its parts, and will go on until crowned by as beautiful and graceful a dome as that which has made the name of Michael Angelo immortal in Architecture.

The whole of the early Materia Medica and Therapeutics was only a collection of empirical precepts and uses of particular remedies, deduced from isolated observations. Subject to accidents and diseases that produced pain and suffering, and threatened life itself, man, from the earliest times, investigated their causes in order to prevent them, observed their effects, and studied every thing that might produce a favorable change, that he might apply the remedy. The natural instincts or appetites for different substances, the irritation of certain phenomena which seemed to have conduced to a favorable termination of diseases, such as vomitings, alvine evacuations, hemorrhages, supervening spontaneously, or after the use of certain substances, natural indications presented by the most common material facts, and finally, perhaps chance, which had made known the effects of certain articles or of certain operations. Such was the abundant source from which man drew the means which were to serve in curing "all the ills that flesh is heir to." How meagre and how uncertain the source! And we can hardly appreciate the difficulties of the early practitioners, who were to lay the rude corner stone of the edifice that was to consume ages in its erection. They had no data upon which to reason; and even at this enlightened age, we cannot explain the *modus operandi* of the various articles used in the Materia Medica. For instance, who, by reasoning from analogy, would say that ipecac should have an emetic, and jalap or gamboge, a cathartic action on the stomach? That calomel should possess an alterative effect on the liver and salivary glands in small, and a powerfully carthartic one in large doses? Or that iodine should act on diseased glands, and the preparations of opium (should) produce a narcotifying and the others an exhilarating and enlivening effect?

The effects of all these medicinal agents of our Pharmacopœa

are taught with certainty, and follow like cause and effect—but without reasoning from any analogy—without any *â priori* reasoning, we have been taught the effects until we look upon them like a mathematical demonstration. This is experience, and has been handed down to us from the rude practitioners of the early ages. The art or profession of Medicine, as we have already stated, had its origin in the most remote antiquity, and is consequently the oldest of all the arts and sciences. Subject to the inevitable causes of disease, a natural feeling of humanity urged man to make known to his fellow-sufferers the means that had been adopted under similar circumstances. Judging from the most ancient documents that have come down to us, we are taught that the sufferers were exposed on the public highways, and each passer-by gave the result of his own experience. This knowledge, crude and very restricted at first, was handed down by tradition, accumulating and perfecting by successive observations. This was art, not science; it was at a much later period that science commenced in Greece, the only country of antiquity whose social and political institutions permitted full scope to the human mind. Everywhere else, in Egypt, in China and India where civilization preceded that of Greece, neither Medicine nor any of the collateral sciences, was elevated above a mere art. In all new communities, the kings, heroes and poets, and above all the priests practised an art that gave them power and increased their influence. Homer describes his Greek heroes, as learned and skilled in the art of curing the wounds which they had made; the sacred writings of the Jews, celebrate the medical knowledge of King Solomon; and several medical works among the Chinese are attributed to some of their early sovreigns. But medicine was practised as an art and a profession, chiefly by the priests. Nor was this unnatural; possessing all the learning and riches of the country, and claiming to be the necessary media between man and his Creator, they assumed exclusive control over Medicine, as well as all the fine arts.

They added to it all the superstitious practices rendered imposing by their ministry, and which frequently concealed, under a sacred garb, their ignorance. And this was the more readily conceded them, as in the primitive ages, diseases were regarded

as punishments from the Gods, and as signs of their anger and vengeance, which could only be appeased by the interposition of the priests. However, it would be difficult and perhaps not very interesting to search for the origin of medicine among the Greeks, amidst all the fabulous history that has obscured their early civilization. Permit us one word on their medical mythology—a subject more curious than important. In their religious system, in which were personified all the phenomena of nature, the Greeks, in consequence of this tendency to attribute to supernatural powers the diseases produced by other causes than external violence, invoked almost all the great Gods as guardians of their health. But it was to one of their chief divinities, to Apollo, the mystical representation of the Sun, and the source of all good and all evil, that the invention of Medicine, as well as all the fine arts, Music, Poetry and Eloquence, was attributed. At a later date, Æsculapius, the reputed son of Apollo, became the special God of Medicine, and received the homage of all the Greeks. But whether all history relative to this Grecian Æsculapius, is, as is probable, a mere fiction of the poets, suggested by traditions relative to the Egyptian Æsculapius—or whether it is really the name of a hero who lived at the time of the Argonautic Expedition—whether he had been placed in the rank of Gods before, or only after the Trojan war, it was a long time after this event that he addressed himself exclusively to the ministers of his temples with regard to the study of medicine. At this period, and probably during the subsequent two or three centuries, the whole art was restricted to dressing simple wounds and ulcers. The internal diseases, regarded as the signs of the wrath of Heaven, were treated by superstitious practices. Prayers, vows, charms, were the only, or at least the principal remedies resorted to. Not that the internal use of some remedies was unknown. Various drinks were employed, and the famous *Nepenthes*, celebrated by Homer, as having been brought from Egypt by Helen, and which is believed at the present day to be opium, attested the power of some of them. Science and the arts did not commence until the close of the sixth century, with Thales of Miletus—one of the seven wise men of Greece. They were, however, very soon cultivated with

ardor. Under him Medicine was soon to assume a scientific form. He is regarded as the author of the revolution which taught the Greeks to study natural phenomena and investigate their causes, distinct from those poetic theogonies that had hitherto sufficed for an easy explanation of the origin and general laws of the universe. Himself and a great number of eminent men after him, devoted themselves to observation on the universe and man, and laid the first foundations of physical and physiological science. It would be entirely uninteresting to pursue the history of medicine from its earliest origin, step by step, up to its present high position; but we cannot leave this part of our subject without referring more particularly to *one* of our illustrious founders—the great Hippocrates—who was born about 460 years before the christian era, in the family of the Asclepiades or descendants of Æsculapius—and who, skilled in the experience of his ancestors as well as his own, and conversant with the knowledge of his cotemporaries, collected all the different ideas, and was the first to form of them an imposing system, which gave to medicine a separate rank and existence. It is in this way that he really merited the title of Creator, the Father of medicine—that all posterity has willingly accorded him. Absence of certain positive documents of such an important period in the history of medicine, the uncertainty that exists on their authenticity, and chiefly as to the purity of the various writings published under the name of Hippocrates, will always prevent us from distinguishing with certainty what really belongs to him in the magnificent work, from what he found in the archives of the Ancient School and cotemporaries. It will be equally difficult to determine what were positively the doctrines taught by him, and what were rejected. There existed, without doubt, many writings on medicine before and at the time of Hippocrates; and it would be a great error to suppose, with some enthusiasts, that this illustrious man *created* in a measure the science in all its branches; genius itself has never been able to improvise a science composed of a great number of researches and observations. But if, in the absence of positive proof, we refer to the unanimous testimony of antiquity, we can not refuse to admit that Hippocrates, whether by his own proper labors or

availing himself of those of his predecessors and cotemporaries, constituted medicine on a solid basis, which had not previously deserved the name of science. If he found already prepared the important revolution which his genius and labors were to accomplish for medicine, that does not detract in the least from his merit and reputation; it has always been so more or less with all great scientific revolutions.

We will glance at a few of the general characters of medical science under our great founder. Already experience, as we have seen, had been admitted into the schools, as presiding over the history of diseases, and as guiding in the application of the means of curing them. The use of votive inscriptions become doubtlessly more scientific, in tracing the more or less faithful sketch of affections treated in the temples, during a long series of years, had formed a mass of valuable observations. The school of Cos enlarged the field of observation and introduced, ages prior to the time of Bacon and Descartes, the inductive method, so to speak, into the study of Therapeutics, by taking into consideration the material circumstances that produced diseases, their manifest causes. But the vain science of the Philosophers, which had attracted to itself the physiological history of the animal economy, threatened to invade that of pathology. Hippocrates separated medicine from philosophy—that is, he proscribed from medicine the subtleties of the sects of philosophers, the applications of their bad physical or natural forces, the hypotheses which enabled them to explain all the phenomena of nature before having observed them. He demonstrated that observation in medicine, as in all other sciences, is the only method which leads to those truths which it is permitted the human mind to explore—that observation alone furnishes the general principles by which we embrace the greatest possible number of facts; and finally, that whatever is inferred as a consequence of principles admitted in advance, however probable they may seem, should be rejected as not representing what really exists. In these precepts we see the first traces of the experimental or inductive method.

Anatomy and Physiology scarcely existed, except a tolerably exact knowledge of Osteology. But whatever could be done

with such small resources, was done by him. He studied the external causes of diseases; he observed and described their principal phenomena with a precision and an independence of all system that can not be too much admired. Often reduced to the simple *role* of observer, and but rarely able to reach the seat and nature of the diseases, he applied himself chiefly to the observation of the symptoms during their course, and the circumstances which indicated a favorable or unfavorable termination. Finally, and it is one of his most beautiful titles of distinction, he traced rules on the regimen of the sick, and created as it were, the branch of *dietetics*—and to which rules the experience of two thousand years has added but little. Surgery made remarkable progress under him, in spite of imperfect anatomical knowledge. We are surprised to find with what care and fidelity he describes a great number of external diseases, particularly fractures, luxations and wounds of the head—with what art and skill he used instruments, mechanical apparatus and bandages.

Did he attempt to embrace in one general doctrine the physiological and morbid phenomena of the animal economy? Nothing warrants us in believing that he went beyond those abstract notions of a moving principle, of a vital force, of a *vis medicatrix naturæ*, which, presiding over the acts of the organism, struggles in a given time against morbific causes, against the agents of destruction, and prepares the critical evacuations by which she triumphs over and eliminates these agents, or succumbs to them and her own proper efforts; hence those therapeutical rules of expectation, of observation of the efforts of nature, in order to moderate them, or aid them in favoring the development of crises where they seem to have a tendency to be produced. We have thus taken a rapid glance at the early history of our noble profession up to the time when it was established on a solid basis by Hippocrates. It would be an Herculean task to follow it up from its humble beginning to the proud eminence to which it has at present attained. We have glanced at these early epochs of medicine, in order to establish our origin—brilliant at its inception, but which degenerated during several ages. What beautiful destinies seemed then to be reserved for it! It alone, among all the sciences, viewed, at its early birth, its foundations estab-

lished by a powerful hand; but the human mind, which cannot arrive as promptly at maturity, was not sufficiently strong to comprehend the truths taught by Hippocrates. In our day, with our pretensions to observation and the positive methods, with the example of the kindred sciences, and with our eternal invocation on the name of Hippocrates, it is with difficulty that we follow in the track which he so well commenced to trace out.

I will now briefly notice some of the objections to our noble profession, and more particularly, some of its uncertainties.

At the present day the uncertainty of the science and art of medicine is a bye-word. Man, being in relation with all natural bodies, finds it necessary to study them, to become acquainted with their characters and different properties. The human body, as a body, is subject, whether during life or after death, to the laws of matter. The study of the physiological and medical sciences should be preceded by the study of the natural, physical and chemical sciences, which, under the name of *accessories*, are justly regarded as indispensable. Medicine in turn renders invaluable services to these and other branches of human knowledge. It is in the knowledge of physical man—anatomy—that is founded the knowledge of man in his moral relations,—moral philosophy. It is in physiology, that the ideologist, the moralist and the legislator should search for positive data for the sciences and arts; for whatever relates to man's education, his wants and passions, and the means of directing them properly, for preventing or repressing excesses. The moral and political sciences cannot be treated in an exact and complete manner without being based on the study of the intellect and affections in a state of health as well as in disease.

All the phenomena of the animal economy, whether they belong to the normal or morbid state, whether they are provoked by natural influences or artificial causes, have a common mechanism, are submitted to the same laws and same principles. A knowledge of these laws, of these principles, of this mechanism, would be necessary in order to establish a veritable theory in the science of organism, in the same way that the laws of attraction founded the theory of our planetary system. Thus constituted, science would furnish to the medical art positive data,

whence would be deduced with certainty the causes of diseases, the various changes during their progress, and the prophylactic and curative means that should be employed to prevent or cure them ; in the same manner as one who knows the principle of motion and the mechanism of a machine can determine the kind of alteration of any particular wheel, and may easily prevent its derangement or immediately repair it. Unfortunately the medical sciences and the art based upon them are yet far removed from this ideal, if they are susceptible of ever attaining it.

The idea that has been formed of the certainty of medicine has generally been inexact, because ordinarily we have had in view only the *result* of our art, and because the question has been embarrassed with accessory or foreign elements that should not be admitted. Exaggeration has been called in, either to sustain or decry medicine, accordingly as it was viewed exclusively in certain aspects, whether favorable or otherwise. Too often the ignorance and inexperience or unskilfulness of the artist has been taken for the uncertainty of the art.

It is one of the great misfortunes of medicine, that demanding the most thorough knowledge, the coolest and soundest judgment and the greatest practical skill, it is so often confided to persons who are wanting in all these requisites. Often again, we mistake impotence and impossibility, for the uncertainty of art. Supposing even, against all probability, that it were possible to extirpate all the diseases to which the human system is liable. were they treated in the very beginning, we shall be forced to admit that there are periods, during their course, when they are beyond all resource. When an organ essential to life—the lung for instance—is destroyed by vast excavations, is it in the power of any one to repair so profound an injury ? Should it be an external organ or member not directly necessary to life, as a limb attacked with gangrene, we can cure it by an amputation ; but it never has occurred to any one to ask of medicine to reproduce the destroyed member. At times the action of life itself induces inevitable diseases ; how shall we arrest the progress of diseases on an alteration in the functions of the heart, when its valves become ossified or its orifices contracted ? Oftener still, the intensity of the morbific causes, the impossibilty

of removing the sick from the determining and exciting causes, the influence of circumstances entirely unforseen, will render the best directed efforts of the physician useless. In all these cases, shall we charge it to the uncertainty of medicine, if it is not sufficiently powerful to effect a cure and thereby perform a miracle? That would be absurd!

The Physician who is acquainted with the incurability of a disease—who, by the means he employs, does not pretend to do more than retard its progress and alleviate pain and suffering—the Physician, I repeat, who can not cure a disease maintained by a cause which it is not in his power to destroy, does not act with less certainty than he who treats the simplest catarrh. In certain cases, observation has taught us that we have nothing to expect from remedies nor from the rallying vital forces; in others, that the diseases treated by diet and other suitable remedial means, have most ordinarily a favorable termination, or present only certain chances of success; this is all that we can promise.

A mathematical certainty in the result of the means employed is refused to the Physician, because he is not master of all the conditions and circumstances, which he can neither foresee nor prevent.

Medicine has then an uncertain power over the issues of diseases, and there can exist on this subject, as under many circumstances in social life, only probabilities more or less numerous. To expect more from medicine, would be to misapprehend the nature of the animal organization. On the other hand, if we wish to sustain the side of the certainty of medicine—if this certainty really exists, or is susceptible of existing, it is only in diagnosis and the hygienic and therapeutic indications, that is, in the determination of the most suitable and appropriate means for preventing and curing diseases, that we must look for it.

The medical, being based on the diverse sciences of which the human system is the subject, undergoes the lot of these sciences and partakes of their characters. Its principles will be certain only, inasmuch as the truths of these sciences are the result of positive and extended observation. Wherever science furnishes signs by which any given disease may be recognized, and wherever it has tested the best medications, art offers precepts, the

application of which will insure, if not a certain success, at least very fair chances of success; for let us confess it, whether it be a question of an operation in Surgery, as the amputation of a limb, the excision of a joint or a tumor, or the treatment of an internal disease, as pneumonia or a pleurisy, the cure, in the most favorable cases, will never be *certain*, but more or less probable in proportion to the success or want of success which experience has taught in a certain number of analogous cases; it being well understood that we are sure of our diagnosis and the exactness and skill with which the therapeutical indications have been carried out. In cases, on the contrary, where there is no science, in cases, for example, in which the influence of any particular circumstance on the animal economy has not been positively appreciated, it is obvious that hygiene will fail in its data for forming rules on the necessity of avoiding this circumstance, as well as the faculty of neglecting it. In the same way, if observation has not made known a particular medication in a certain case or class of diseases, art remains without precepts on the therapeutical indication.

From the difficulty of recognising in every case the seat and nature of diseases, from the impossibility of always applying the remedy when known, and from the necessarily imperfect state of medical science, shall we conclude, with some philosophers, that this science has been of but little use to the human race, or that it has been even detrimental? This would be passing judgment without considering the question in all its phases.

Medicine, even in the most remote antiquity, gave useful counsels to man. Even when it was most infested with errors by the spirit of system which had invaded it, the number of those treated successfully by Physicians was much greater than the reverse.

There is an irresistible desire in the human breast to seek for alleviation from suffering. This desire, which renders them credulous, makes them receive favorably whatever flatters their wishes or their hopes. Should they therefore be delivered over to empirics and charlatans whose success is based on this human weakness? With whatever rigor and with whatever prejudice medicine and Physicians are judged, it would be the extremest absurdity to suppose that it would be more dangerous to confide the

interests of our health to persons who have devoted their whole time and attention to this subject, than to persons without character, who act blindly and at hazard, and on the most false appearances.

Experience can alone make us acquainted with the relations, the laws and the general causes of the phenomena of nature. But these relations, these laws and these causes are only abstract notions, ideas formed from the aspect of phenomena, and expressing their order and conditions of succession. We are entirely ignorant, and by the very constitution of the human intellect, will doubtless always remain ignorant, of the nature of the connection of the phenomena with each other; we do not know why a certain phenomenon, considered as a cause, because it constantly precedes a certain other one, is necessarily the producer of this latter or of the effect attributed to it; between the shock of two bodies and the motion which follows—between a stone abandoned to itself and the ground on which it is precipitated we perceive nothing which can cause these actions. But these actions being always produced under the same circumstances, we deduce the existence of a superior cause or power. This power, designated by the name of the phenomenon produced by it, can, only be characterized by the laws which its determinate effects follow, and which express its mode of action. It is thus that we say that the force of gravitation or attraction acts in direct ratio of the masses, and in inverse ratio of the square of the distances. Often in placing one's self at a different point of view, we attribute to a body in motion the force or power of acting, so to speak, by itself; and we then say it is a property of that body. Whence it results that these ideas of cause, of force and of property have an intimate connexion. And it is this accumulated experience of ages in the physical sciences that has brought them to their present high state of completeness—and it is in its technical sense that we use the word *experience* in medicine, and not in its popular and unprofessional meaning—of the mere lapse of time—of a certain number of years practice, which makes the man who continues for 20, 30 or 40 years the same dull routine practice with which he commenced, often prescribing before seeing his patient, and entirely ignoring all new remedies and the new methods of diagnosis, a practitioner of large expe-

rience. I mean the man, who, after commencing his practical career, applies himself faithfully and zealously to the investigation of the symptoms of each individual case of disease under his care, analyzes and compares the symptoms as revealed by the great book of nature; and after bringing his judgment to bear on all the possibilities of its being such or such a disease as described in the written books, to oppose to it in all the varied and various stages of its progress an intelligent and rational treatment. This man will acquire more experience in five years than the other will in a long lifetime. And, although success may for a time attend the routinist, yet in the end we shall see that the scientific application of the art of medicine, will not only crown its votary with *well merited* success, but will give him a clear and untroubled conscience, even when his best combined efforts have proved unavailing to save life. Of such intelligent practitioners, allow me to say, that I believe our as yet infant society is composed, and I may be permitted to add, *we want no others.* And let us cursorily examine, in this connection, what are the duties of a physician, and what qualities are necessary for him. If we consider him in the most important of his duties, that of treating diseases, his mission is to apply the rules of art to each individual case of disease, and to determine and execute the precepts that may have any relation to it. He should certainly, first of all, possess all the scientific and technical ideas which constitute Medicine; but these first conditions are not sufficient; in order to apply properly this theoretical knowledge, he should devote himself to various mental and mechanical operations, which form particular secondary arts, intended to fulfill certain exigencies of general art, and to concur towards the final end of the latter, the treatment of diseases. The particular arts are Diagnosis and Therapeutics. Diagnosis is the most essential art of the medical practitioner; if he cannot recognize all the characters of the disease which he is called to treat, if he can not test its identity with one of the diseases whose portrait has been drawn for him by science, how will he be able to determine the appropriate treatment? The diagnosis established and the indication determined, it remains for him to execute the means for fulfilling it; and

which are sometimes very easily affected, as it merely relates to the employment of the medical substances, and sometimes consists in mechanical operations, more or less complicated. In either case, whether a simple observation furnishes the character of the disease and the base of the diagnosis, whether certain operations are necessary to arrive at it, as by auscultation and percussion we examine the sounds in respiration, and also those of the heart, the physician should possess peculiar qualities, or he will practice his profession with but little success or satisfaction to himself. A sound judgment, an attention capable of concentrating itself on all the facts which are presented to his observation; that penetration and that sagacity which enables him to detect with facility and promptness the characters of complicated, undeveloped symptoms, to seize analogies and resemblancies; that address which facilitates observation and should preside over all mechanical operations; such are some of the qualities without which a physician can never pretend to the title of a good practitioner, whatever experience, or rather however long he has practised medicine, and however profound his theoretical knowledge may be. The *ensemble* of these qualities, which developed and perfected by exercise, but given only by nature, constitutes what is called *medical tact*, which has been ridiculously considered as a mysterious faculty. This talent of observation, this sagacity, this promptness and precision in all the mental operations and mechanical processes—all these qualities when carried to the highest degree, constitute the great practitioners; to them alone is it permitted to conquer all the difficulties of art, to perfect and enlarge it. Such in ancient times were Hippocrates, Galen, Arateus—in modern times, Bichat, Laennec, Dèssault, Parè, Cooper, Brodie, Corvisart, Drake, Dudley, Physic and hosts of others. Such men are always rare; but there is a measure of intellectual capacity, more common to every one, which, sustained by a good medical education, suffices for the ordinary wants of practice, and permits a rigorous and useful application of the precepts of the art. It is to raise to this common level the whole medical body, that the medical schools and teachings should tend.

In spite of the intimate relationship existing between the dif-

ferent branches of medicine, we must not conclude it absolutely indispensable, in order to practice the profession, to profess an intimate knowledge of them, in all their details. There are certain ones, as Anatomy, Physiology and Chemistry, for example, which are necessary for an intelligent practice of the art; but there are a great number which serve only to advance the science, and which the Physician, without being totally ignorant of, may neglect. It would be difficult to trace limits between these two kinds of knowledge, to say what are indispensable and what useless; for there is hardly a scientific idea that we might affirm is or will be useless in forming a diagnosis, or to pathological physiology, and consequently to the hypothetical therapeutical indications which hold such a conspicuous place in practice. There is no profession which exacts such extensive preliminary studies, and at the same time such rigid morality, as the medical. Its practitioners will never be at their level, until society shall accord them a rank, a consideration proportionate to their acquirements and efforts and their intelligence—qualities which they should seek to unite; they should not hold a position inferior to all the liberal professions—an easy access to legitimate ambition should be opened to them—a disinterestedness, a devotion and continual sacrifices should not be demanded without compensation. Let the remark of England's greatest physiologist, the late lamented Marshall Hall, be no longer true—"that in medicine alone is improvement without recompense." Society should require guarantees of the capacities of Physicians. These guarantees should be found in the establishment of State Medical Boards of Examiners and in the good organization of the Schools; the only conditions capable of assuring good medical instruction, as well as the execution of a well regulated system of examinations to which those should be subjected who apply for the privilege of practising. The advancement of the science and art depends, without doubt, greatly on the individual genius of those who apply themselves to it. However, certain institutions may powerfully concur. Our Legislators, for want of sufficient light on the subject, do not occupy themselves sufficiently with the means for advancing the onward progress of the medical sciences—a progress which concerns intimately the

first interests of society. They see in general, in the mechanical application of the medical art, only a trade—and the future of the sciences on which it is most directly based, is in a measure abandoned to individual efforts, and consequently to hazard, whilst their progress depends principally on the concurrence of these efforts in their one common direction.

It is the principal object of our infant society, in connection with our co-labourers all over our widely extended country, to still farther elevate, ennoble and perfect our comely and magnificent structure; and to do this successfully, we must have the united efforts of not only our own profession, but the co-operation of the entire community, as well as that of our Legislators. The community is censurable for a large part of the quackery, *not out* of, but *in* the profession. They enable not only those mendacious nostrum venders to realize princely fortunes at the expense of their own lives and smaller fortunes, but they look to the Physician who vaunts his own cures and never failing success, and decries the characters of his more honorable professional brethren, rather than to honest, but perhaps modest and retiring merit.

As Hippocrates even had his difficulties and obstacles, so have we—but the more difficult and rugged the path, the greater must be our exertions. We have the accumulated teachings of science since the days of our illustrious founder, and with such a foundation and such materials for the superstructure, should we fail, our fall will be "unwept, unhonored, and unsung." I attempt no eulogy on our noble profession. I thought this feeble *defence* not out of place—you, fellow members, fully appreciate the dignity and importance of our calling, and to the unprofessional it might be considered vain boasting, were I to essay the simple unvarnished truth. I hail with pleasure and pride the enthusiasm that has entered our little circle—may its circumference go on enlarging yearly—and may we adopt as our motto always before us that of the Empire State—*Excelsior!*

BIBLIOGRAPHICAL NOTICES AND SELECTIONS.

AN ESSAY

On the Position and Duties of the Medical Profession in the Middle of the Nineteenth Century,

By Charles E. Johnson, M. D., Raleigh, N. C.

The Author of this essay is already well and favorably known to the Profession. On more than one occasion he has published his views on different medical topics; and in every instance the productions of his pen have been distinguished by an elaborateness of research, an extent and accuracy of information, a grasp and originality of thought, and an elegance and terseness of style which have won for him a commanding position among the Physicians of the country. Comparisons are odious, but "justice should be done though the Heavens fall"—and we can but express the opinion, that among those who have devoted themselves to the elevation of the profession in Carolina—the efforts of Dr. Johnson have been crowned with the most decided results—and that if one man has done more than another towards developing the medical literature of the State, awakening her Physicians to a proper estimate of the dignity and responsibility of their calling, and securing to the profession that position to which the skill and intelligence of its members entitle it, the author of this essay is the one to whom that honor is most properly due. In the paper now under consideration, Dr. Johnson first draws a most graphic sketch of the times, distinguished as they are by the grandest march of civilization that the world has ever known, marked by the most decided progress in the arts, sciences, and letters, illustrated by the achievements of the steam engine, the telegraph, and the telescope, characterized by the largest intellectual liberty, the deepest research into the mysteries of nature, and the grandest discoveries in the world of thought; and whose history is a chronicle of the establishment of schools, the endowment of charitable institutions, the disenthrallment of conscience, and the dedication of temples to the worship of the living God. He next proceeds to examine the various groups into which society has classified itself in connexion with the great movement which has convulsed it, and to unfold the mo-

tives and principles which govern and characterize them; distinguishing between the disciples of a true, and of a false philosophy, separating the worshipers of mammon or of pleasure from the real votaries of science, and honoring the practical, intelligent and christian philanthropists in every calling, rather than the visionary, skeptical, and bigoted champions of some selfish, circumscribed, and delusive plan for the improvement of the race. And finally Dr. J. asks the members of the profession with which of these classes they desire to enroll themselves? But, we will let him speak for himself, in his own eloquent, impressive, and stirring language:

"Now, gentlemen, look at these pictures, which are nothing more or less than sketches of real life, presenting the only rational view of the movements of civilization, and tell me which is Satyr, which Hyperion; and then tell me also, with which class the members of the medical profession should always be found; under which standard, with reasonable hopes, they may expect to be always able to march forward in the discharge of the onerous and responsible, but invaluable duties of their high and benevolent calling. In the anticipation of a glorious future, can you hesitate under which banner you will enlist? If you doubt, an attentive consideration of what society requires of every medical man who claims its confidence and support, will readily point out to you, not only that your proper place is in the foremost ranks, but it will likewise teach you that you must there struggle manfully, shoulder to shoulder, with the philanthropists and philosophers of the age; for, among highly civilized nations, the medical man has become a necessary part of the social, moral and political condition of the people. This makes the science of medicine emphatically the science of human nature, and imposes upon the profession proper, a role of duties commensurate with the most comprehensive schemes for the promotion of the best interest and welfare of humanity. Consequently, medical men are expected to strengthen their minds by diligent, earnest cultivation; to develop them in the widest range of practical and scientific attainments; and more than all, to consecrate them in their strength and fullness to the loftiest aims and the most beneficient purposes of usefulness. '*Then*

give place to the physician,' for it may be asserted, without the fear of contradiction, that the medical man being the recognized cultivator and applier of the sciences of human nature, has a mighty future mission to fulfil towards suffering humanity. But to enable him to fulfil this mission, he must not only be prepared with learning and wisdom to discharge the arduous labors of his calling, but he must be well-bred, kind, considerate, attentive, enduring, patient, forgiving, firm ; in a word, he must think like a philosopher, feel like a woman, and act like a hero. Then he will be admitted to the fullest confidence, and be made the depository of secrets that bind together the whole fabric of society ; aye, the wise counselor, in its purposes of usefulness and beneficence, of the state itself. Indeed, is that not the case now with the deserving physician ? And does he not now occupy a position of singular influence and great moral power, such as the priest once held, with this advantage, that he is placed in that situation by society itself as a legitimate result of civilization, because, from the nature of his studies and the research of his art, he reads more deeply into the human heart, and wisely penetrates into its inmost recesses ; whereas, the priest, assuming to rule by *Divine Right*, demands implicit obedience and an entire surrender of our reasoning powers to what he *asserts* to be the mandate of Heaven, which he is especially delegated to proclaim.

" While ministering to the body, the physician is exploring the mind ; for to him alone do men speak without the least reserve, candidly, and perhaps with even more than candor. Moreover, the phenomena presented by the human body, in health and disease, are most complicated in their character, being the combined result of every physical law, perhaps, which is found operating elsewhere in nature, and of two other peculiar elements of power, nerve, force and mind, that are 'mightier than all, overtopping, complicating all ; working now in harmony, now in discord, but always working with them all,' to elaborate the phenomena of humanity, which the medical man must study, as well in health, when all nature seems to smile upon us, as in disease, when known influences are at work against us, or when unknown ones, that 'walk in darkness and waste at noonday,'

seem plotting our destruction. And, if the grosser agency of the body, reacting constantly on the complex and delicate operations of the mind, chances to destroy its otherwise beautiful proportions and consentaneous actions; or if, on the other hand, the mind being disturbed in its healthy disposition and exercise, or deformed, perhaps, in its original constitution, should become the disturber of the lawful and harmonious actions of our physical natures; who will be expected above all others to make both mind and body equally the subjects of his most anxious study and careful exposition, but the conscientious and enlightened physician? The duty is a high and responsible one, and he who hopes to discharge it wisely, faithfully, must have a world wide philosophy, embracing within its comprehensive fold all races, ranks, conditions and intellects; in a word, the whole phenomena of humanity. He must not only be able to expound and apply the laws of physics and physiology, pathology and therapeutics, but he must become a psychologist, a seeker and teacher of those great ethical truths and moral duties, which are foolishly thought by some to belong to the students of metaphysics and theology only, notwithstanding reason and the moral sense both proclaim that the separation of psychology and physiology is an unnatural divorce of those things which God has wisely and mercifully joined together. Hence it is the medical man's province to assuage human suffering in all its varities and aggravations, whether of physical or moral disease, whether as confined to individuals, communities, or as belonging to the state. He wages perpetual warfare with deadly disease, and fearlessly exerts himself to the utmost of body and mind, to stay the ravages of plague and pestilence; and it is in his energy and judgment, but above all in his honesty of purpose, that the people have to confide for immunity from those fearful epidemical visitations which periodically thin their ranks. He is ever called upon, throughout his whole professional life, to fight that never ending battle of poverty against the proud man's contumely and the greedy man's avarice; while sometimes, he has to throw the whole weight of his intellectual and moral force between the strong arm of the law, and some unfortuuate member of society, against whom it is uplifted, in the sacred name of justice, and with all

its dread formalities, to inflict, not punishment, but vengeance. How often, too, is the medical man called upon to mourn over that antagonism between the ermine on the bench and the rags at the bar, which he sees and feels to be too unnatural to be right, because the true moral dignity of human nature is outraged not much more in the culprit than in the judge.

"With the good physician, then, it is a subject of honorable boast, that science and learning are merely the necessary means to an important end; that all his knowledge is eminently practical, and its greatest purpose benevolence. Therefore, it is devoutedly to be hoped, that the punishment and reformation of criminals, as is now almost universally the case in regard to the insane, will ultimately come within the pale and under the dominion of medical science. A sound philosophy and a genuine christian consciousness ought, and must, plead against all blind vengeance, and unmeaning useless cruelty; and I believe they must and will appeal at last, to medical science for the means and mode whereby mercy and justice may be linked together. Who, so well as we, are entitled to open the door to moral and and intellectual sources of improvement? We have unequalled opportunities for observation and reflection; are called upon daily to watch the secret workings of human passions and to trace the progress of mankind in virtue and in vice; and, as a consequence, I will boldy ask, where will you find so little bigotry, so little prejudice? We consider the subjects of health and recovery from disease, whether physical or moral, as objects of paramount importance; and should seek to establish and apply the principles and practice of our profession without regard to other considerations than the discovery and declaration of the truth, and the safety and wellfare of all.

"In devising, and in superintending all sanitary reformations and plans of medical police, we are expected to co-operate understandingly, and as advisers, with the legislature and with the civil authorities, with parents and guardians, and with the architect and engineer. Then we must call to our aid all the knowledge which the state of civilization in the arts and sciences furnishes, and endeavor to give it proper direction and availability for 'the moral improvement and material welfare of the

majority,' by means of the statutory acts of enlightened governments, the efficient administration of the civil authority, and the systematized efforts of practical philanthropists ; while we should always be ready in person to superintend the execution of what we may theoretically recommend. In fact, practitioners of medicine will always be compelled from their honorable and responsible position in society, even if they should not feel bound by the sacred principles of natural and revealed religion, to exert themselves for the improvement of the physical and moral conditions of mankind. All those legislative measures and philanthropic efforts, therefore, which have this object in view, will not only receive their cordial support, but will likewise be found, upon inquiry, in most instances, actually to have received their original impulse or right direction from medical men. And particularly, in those more directly practical labors wich contribute to the alleviation of human suffering, where will you find more earnest or more faithful ministers of Providence, than those whom no toil or danger restrains from attending to the simple call of professional duty, alike in the hovel as in the palace, in the squalid habitations of penury as in the abodes where wealth contributes its utmost to mitigate the discomforts of the sufferer; for they know that oftentimes

'*Pallida mors aequo pulsat pede*
Pauperum tabernas regumque turres.'

"'He (the practitioner) is a social reformer in the highest sense of the word,' says an accomplished writer. 'Everywhere he comes in contact with misery and vice, with degraded habits and injurious customs, with the numerous families of the poor, and the sterile pampered homes of the rich. To all, he can give advice with benefit, and in every sphere of labor diffuse a knowledge of hygiene.' Medical men have been mainly instrumental in providing due space for ventilation, and in other respects securing the highest salubrity attainable by architectural arrangements and thorough draining ; and to them, also, may all our additional comforts and meliorations, in cleanliness and warmth, clothing and food, physical and moral training, be chiefly attributed. Those wretched states, *sickness and poverty and crime*, which are so often linked together by the tongues of men, but of which

they actually know so little, we see in our daily rounds, walk really hand in hand. We *know* that where there is much poverty and sickness there is much crime, and that where there is much crime and poverty there will be much sickness; and with all, from public neglect and 'man's inhumanity to man,' a helplessness of degradation, a clouding of the faculties, a dullness of the moral sense, a prostration, in a word, of the God-like powers of humanity, that leave little to hope for the position of beings in the next world, so degraded, so debased in this.

"Now, relief of poverty from the public purse, as a social right, is one of the characteristics of modern civilization; and this principle should be further extended so as to include relief of sickness. Then we should not only have a lessened amount of poverty and sickness and crime, but a class of intelligent and useful citizens, the practitioners of medicine, would be relieved from a burdensome tax, for the imposition of which no good reason can be given, and for which, they receive no return whatever from the body politic, either in the way of actual remuneration or fostering care.

"On the subject of education, believing that, as man is nearer to the deity in wisdom and knowledge, as well as in grace and goodness, in that same proportion will he be nearer to the deity in the future state, the happiness of which depends upon the soul's knowledge as well as its love of God, the diffusion of useful knowledge among the masses will be to him a question of transcendent importance, and, therefore, he will insist that it be conducted on the soundest scientific and christian principles. In his estimation, it is not 'sufficient that the mere organs of mental action be developed, but it is also required, that they be developed with a reference to the motives from which they will act, and to the final cause of their action; otherwise, the training, so far from being a good to man, may be an evil, by affording him greater power for the commission of evil and of departure from God.' Now, the intelligent practitioner knows that 'this better state of knowledge' can only be attained by a proper training and development of all the faculties, physical, moral and intellectual, and that these are best to be attained by a thorough knowledge of physiological laws. Hence there is an

obvious propriety in the medical man's being connected with all comprehensive schemes or educational plans for the useful development of man's faculties.

"But our duties are not confined to home or a circle of selected friends and acquaintances. We are especially called upon, as scientific and practically useful men, to go abroad in the service of our country; to be present with all expeditions and emigrations, by land and by water; always as conservators of the lives and health of others, or as companions, and frequently as leaders, for no expedition that is of the least importance to human life or interests, not even Christian Missions, can move without us. Thus, everywhere, in every region of the globe, in every pursuit of life, and in every stage of intellectual culture, we must be present to contribute a most important part toward 'the moral improvement and material welfare of the majority?'

"Such, gentlemen, is the position we occupy; and such is the nature of our vocation, the usefulness and importance of which cannot be exaggerated. Have we qualified ourselves to fill this station, to discharge these duties? If we have not, whatever estimate we may form of our own merits, we must not expect society at large to view them in the same light; and, as there is no appeal to Cæsar, its judgment will be final, and generally speaking, just. The truth is, the common sense of every cultivated people is rapidly coming up to the point, at which even the most profound Doctor, whether of medicine, law or divinity, may stand, and in contemplating the range of his intellect, confess that all men have an equal right to the boon of knowledge; wherefore, let us endeavor to secure submission to our professional advice by convincing mankind of the value and safety of our counsel, rather than by striving to enforce obedience by an acknowledged supremacy of professional authority. By our fruits must we ask and desire to be judged. If they are like the apples of Sodom, we deserve no better than a Sodom's fate. But, if they are pleasant to the sight, agreeable to taste, and wholesome to body and mind, we have a right to expect of our fellow citizens ample remuneration for our services, and that they will cheer us on, in our arduous labors, with their approbation and their smiles. But, gentlemen, if we hope to bring forth fruits

meet for the rewards, the approbation, the smiles of mankind, there is a consideration of paramount importance, which I have not touched upon yet, but which should not be overlooked, viz: we must ever remember that no professional man can preserve the public favor unless he possesses the respect of his own profession; that if he would effectually guard his own interest, he must be mindful to attend to the interest of others; and, therefore, that he must be studiously careful liberally to construe that part of medical ethics, which regulates the conduct of physicians towards each other, and towards their patients. For, after all medical etiquette, which is considered by some persons as a sort of raw-head and bloody bones, is nothing more or less than gentleman-like deportment, on the part of medical men, towards each other in their professional relationship, and towards the patients committed to their care. It may all be learned from that golden rule, '*Do unto others as you would they should do to you.*' On this hangs all the professional as well as social law. 'As then,' said a distinguished member of our profession many years ago, 'we value our own characters, we should be especially tender of that of others, as far as that can be consistently with truth, and with a due regard to the welfare of those committed to our care.' It is surely wretched architecture to attempt to build a reputation on the crumbling remains of that of another. What can be expected of such a structure, but that it will tumble about the ears of the builder, and perhaps bury him in the ruins. Rest assured, that however secretly or cunningly any one may manage, '*Ambiguas spargere voces,*' the uncharitable insinuation will be disclosed; for such things, stone walls have ears, or to use the language of Solomon: '*A bird of the air shall carry the voice, and that which hath wings shall tell the matter.*' *Do unto others as you would they should do to you,* and when your, 'way of life hath fallen into the sear, the yellow leaf,' you will enjoy golden opinions from all sorts of men,

'As honor, love, obedience, troops of friends.'"

PRACTICE.

ON THE TREATMENT OF NERVOUS HEADACHE,

Gulstonian Lectures, delivered before the Royal College of Physicians.

By John Addington Symonds, M. D.

I hasten now to the consideration of the treatment of nervous headache, that kind of which I have adopted the popular appellation, and which I have described as consisting of a painful affection of the nerves of the brain. And first, as to the removal or alleviation of the immediate attack. It is rare for us to succeed in cutting short an attack, that is, stopping it in mid career, or at the very onset; but we are not without means of greatly abating its violence.

The case is one for a skilful use of anodynes; and I know of no form of pain which offers wider scope for the exercise of ingenuity in the combination of these remedies, and in the mode of administering them, as well as of patience in varying them, till the form and dose have been ascertained which suit the individuality of the case. I need not say that nothing marks the sagacious physician more surely than his faculty of quickly discerning the speciality of the patient submitted to him, so that he may see how the operation of a general therapeutical law must be limited in its application to a particular instance. But in the sufferer from headache it is all but impossible to divine the particular susceptibility of anodynes. And the physician who might very quickly perceive how far his patient's special organism might be likely to tolerate strong antiphlogistic or actively stimulating treatment, might be quite at fault in guessing whether a headache would be relieved or increased by a dose of opium.

The difficulty in administering opiates for the relief of headache is partly explained by what ensues after taking them for mitigation of pain in other organs. We do not doubt our ability to quell the pain of gastrodynia, enterodynia, or toothache, at least for a time, by an adequate dose of opium; but we know the reproach which is often thrown upon us by the patient, who with an aching head and sick stomach, assures us that he has only exchanged one kind of misery for another. This effect of opiates is worthy of a moments discussion, not only because it is

a headache, and therefore within our subject, but also because it is obviously related with the sedative treatment of headache in general.

After a dose of opium sufficient to induce sleep for several hours, the patient may feel upon waking a frontal headache, dull or sharp, accompanied with nausea and vomiting. It closely resembles what is called "a sick headache," and it may last for several hours. It is somewhat like what is complained of after intoxication, excepting that in the latter instance, thirst is more prominent. Though there is probably more or less of cerebral congestion consequent on narcotism, the pain can scarcely depend upon that state. We have seen how any excitement of the brain whether emotional or intellectual, is capable of inducing a painful state of the nerves of the brain. Therefore it is not surprising that anything which so seriously interferes with the sensory ganglia as to compel them to sleep for a certain time, should occasion pain, when the soporific effect has passed off. That there may be some sympathetic influence from the abdominal organs, which have also been tampered with, is very possible, since in some persons the disagreable consequences are averted by combining an aperient, especially a mercurial dose, with the opiate. But this does not always answer ; and I believe that the disagreeable and painful symptoms result from the action of the opiate on the nervous centres. Some persons are so constituted that within an hour or two after taking the narcotic, instead of being made to sleep, they suffer the same symptoms of distress, with the addition in some instances of extreme faintness.

It is a problem yet to be solved why narcotics should affect persons so differently. Few constitutional infirmities demand our pity more than the incapability of taking opium without detriment. With many no inconvenience whatever ensues. The paroxysm of pain has been subdued, sleep induced, and no discomfort of any kind is experienced. But seeing that such is the fact, however explained, we cannot be surprised that it should be difficult to administer narcotics for the alleviation of headache.

In many persons the attacks are too frequent to admit of such

frequent recourse to doses of sufficient strength for the reduction of the pain. In others they occur in the day time, and though capable of causing great discomfort, they hardly warrant a withdrawal from the avocations of the day, in order that the subjects of them may submit to anodyne operation. But when the case is either severe enough to lay the patient aside, or when it comes on in the latter part of the day, there is no reason why the opiate should not be resorted to. My belief is, that we are over cautious in the use of these remedies for nervous headache. From an exaggerated fear of inducing congestion, we resort to the feebler agents, which are seldom found to be of much avail, and discourage the patient for the trial of more efficient medicine. I confess that for acute pain, I place very little confidence in henbane, hemlock, and lettuce, and hops. If the attack is to be met by narcotics, we should try first one or two grains of opium, or an equivalent of morphia, combined or not with calomel or blue pill. In some persons the opium acts more kindly in conjunction with camphor; in others, with a saline draught. But if opium or its alkaloid cannot be resorted to, there are other efficient anodynes which may be appealed to; such are aconite, belladonna, and cannabis indica. Of these, aconite has been in my hands that which may be most relied on: the difficulty is really in its power. There must be enough, but it is more easy to pass from what is sufficient to what is excessive, and therefore dangerous, than in the case of any other narcotic. A little too much opium we know the worst of. Even with belladonna it is only temporary delirium or blindness that we have to dread; but a very slight excess of aconite puts the patient in peril by the depression of the heart's action.

It may not be amiss to relate an example of the caution requisite in the use of this powerful drug. For a lady who had for many years suffered intensely from attacks of headache, I prescribed the alcoholic extract The remarkable relief which she derived from this medicine made her anxious to have it always at hand. The dose to which she had become accustomed was half a grain in a pill, and she was allowed to repeat the dose once after two hours if the pain persisted. She took a supply of such pills with her into the country, and she was in the

habit of resorting to them as occasion required, with great benefit. But one day, when she was engaged to a dinner party, at some distance, she was attacked with her usual headache a few hours before the time of going out. She hoped to be enabled, by the use of the pills, to keep her engagement. Not finding so much relief as usual, she took a second pill, and was much better; but just before stepping into her carriage she determined to make sure of a pleasant evening, and therefore swallowed a third pill. Before she could arrive at her friend's house, she was taken frightfully ill; the carriage was stopped at a cottage by the road-side, and for many hours she was in great danger, with all the symptoms of aconite poisoning.

I usually direct a certain dose of Fleming's tincture (from one to two minims), to be repeated after two or three hours if needful; or one-eighth or one-sixth of Morson's alcoholic extract. In some cases the effect is marvelous. The instances, however, in which I have seen most good result from aconite have been those in which there has been a more chronic species of pain—a constant soreness or disposition to ache. In these a small dose administered thrice daily has been found very salutary, whether combined with tonics or taken singly.

In these cases, again, I have known very great comfort ensue from the use at bedtime of a combination of salines, nervines, and ether. Thus in one of my patients whose brain seems to be always on the verge of aching, such a mixture is always at hand, and rarely fails to avert a threatened fit of pain, though it would be inadequate to the suppression of it when fully formed.

Chloroform inhaled will relieve or remove a headache; but its effect is too transient to be of much avail. I have given it by the stomach in its pure form, or as it exists in chloric ether, and sometimes with immediate dissipation of the pain; but the direct anodyne operation is uncertain, and I have sometimes doubted whether the good effects might not be due quite as much to the rubefacient action on the mucous membrane of the stomach, as to the narcotic influence on the sensorium.

The external use of anodynes might be oftener appealed to than it is. When discussing sympathy in relation to the production of pain, I adverted briefly to impressions of temperature

on the scalp, and indirectly to anodyne applications, and I expressed a strong opinion that the media of communication are the vascular nerves. I know not in what other way to explain the relief afforded to an aching brain by the application of a pad, soaked in a mixture of warm water and laudanum, to the forehead and temples. This measure is preferable to the employment of stimulating liniments, which, besides the inconvenience attending their use, may do harm by exciting the capillary circulation of the scalp, and by sympathy, that of the interior.

In some cases great alleviation is derived from the use of sinapisms or other rubefacients applied to the spine; but it will be generally found when this is the case, that a certain amount of vascular disorder is added to the nervous pain, either as an effect of this, or as the concomitant result of a common cause. But when the pain is more purely nervous, and occurs in a person of high neurotic sensibility, the irritation of the cutaneous nerves may add to the distress instead of lessening it.

But, in addition to the decided narcotics, we have a useful class of agents conveniently grouped under the term nervines. Thus, there are, in the first place, the dietetic nervines, tea and coffee, which are invaluable in the minor degrees of nervous headache, especially when it has been the result of fatigue, either mental or bodily. There is, however, some danger in their use, for they not only dispel the pain in question, but they also recruit the nervous power in the brain so thoroughly as to tempt the patient to return too quickly to the very exertions which have done the mischief. But I am not acquainted with any agents which equal these substances in the power of removing the headache, without leaving inconvenient results. And as their physiological operation is purely cerebral, restoring the intellectual faculties, and ministering to the sensation of personal well being, as well as lessening any sad emotions, we have here an additional presumption, were any required, that this headache is seated in the nerves which are immediately related with the molecular action of the brain.

The medicinal nervines are also of use, and chiefly valerian, camphor, castor, and the fetid gums. Of these, valerian is at once the most efficient, and the most easily taken, whether as an

infusion, or in the form of volatile tincture. But these substances are less beneficial as remedies for an attack of pain than as correctives of the neurotic sensibility which gives rise to them.

This latter treatment may be said to be prophylactic to the attacks, and curative of the diathesis, and it is of far greater importance than that which merely contemplates the removal of the present pain. It is superfluous for me to talk to this assembly of the methods of correcting this diathesis by air, diet, and exercise, or by removing those faults in the digestive organs, or in the uterine system, which have induced it. Nor shall I discuss all the various tonic and other medicines conducive to this end which have been recommended. I shall confine myself to those of which I have had most experience. and which have best prospered in my hands.

There are two which stand far in advance of the rest—quinine and arsenic. Iron will do much when there is an obvious deficiency of the red corpuscles of the blood, in conjunction with the diathesis in question, but its value is not so specific as that of the remedies which I have named.

The *modus operandi* of quinine in the cure of ague and of nervous pain, is not without mystery. Were it only a remedy for the cure of that remarkable series of phenomena comprehended under the name "intermittent fever," a comparatively simple hypothesis might present an adequate key. One might begin with presuming that the malarious poison in the blood induces a certain change in the fluid, analogous to the process of fermentation. and that after the eliminative action of the skin, the blood returns to its former condition, with retention of enough of the poison for producing in a definite period a like process, the very poison being, in all probability, capable of multiplication in the blood ; for were it not so, how could the disease remain for months after removal from the malarious source? Admitting such a theory of the disease, it would not be difficult to append to it the hypothesis, that quinine destroys the poison, or prevents it from developing that change in the composition of the blood which eventuates in periodical fever. But quinine is as certain a remedy to the neuralgia which follows a catarrhal attack, or that which is the consequence to a slight blow on the head ; cases in which

there is no reason for presuming a chemical vitiation of the blood. If the former hypothesis would fit the facts or the philosophy of ague, it will not account for the cure of neuralgia.

The operation of this substance, indeed, is so unequivocally exerted on the functions of nervous substance, and with no direct proof of its affecting the composition of the blood, that one would be rather tempted to frame an hypothesis which should bring the cure of ague within the scope of a neurotic process.

In an admirably reasoned argument by Mr. Paget, in a lecture on the rythmical action of the heart, strong grounds were offered by that eminent physiologist for the belief that rythmical actions depend on processes of molecular growth, occupying definite periods of time. If this be true of physiological phenomena, is it not likely to be applicable to pathology? In those neurotic affections of periodical recurrence, neuralgia, asthma, epilepsey, &c., may it not be that a portion of the nervous substance in some central part suffers an error of growth, which occupies a certain period, perturbs the natural function of the part for a certain time, and ceases till a new growth has been developed, and runs its course in like manner. I have a patient who every day is subject to the following attack, and has been so for the last eleven years, without one day's intermission. At 4 P. M. she is seized with clonic spasms of the left arm and the left side of the neck, which last for three hours, and then subside. No mental impression, no opiates, no tonics, no baths, no diet, no change of air, no galvanic currents, no chloroform inhalation, nor whatever the wit of any doctor has hitherto devised, has succeeded in preventing the attack. Once by chloroform inhalation I succeeded in cutting short the paroxysm; but the remedy was worse than the disease. The only remedy which has lessened the violence and duration of the fits is quinine in large doses taken every day. Great hopes were built on arsenic; but the mucous membranes were intollerant of this agent.

Now the periodicity of such an attack is perhaps no greater a mystery than the periodical evolution of nerve force in the nerves of the heart, if we presume the growth in an abnormal form, of a portion of the nervous centre related with the motor nerves in the subject of this singular excitement. Tendency to recurrence

of like action is a well marked attribute of nervous substance, and implies the ready establishment of new forms of growth and action; and it lies at the root of habit in sensation, motion, and thought. Whether in health or in disease, new changes of life and action in the nervous system easily become permament. Were it not so, what would become of progress and education? A morbid habit is the continuation of a casual abnormal action. A strong impression is made on the nerves of the heart, and the rhythm of the pulsation is changed; from that time the change may continue. The nervous structure retains its new mode of growth and action; it is an excess of that tendency which belongs to nervous substance in general. An infinitesimal molecule of brain undergoes a change in the production of a thought: and from that time forth, so long as its life endures—in other words, as long as memory is intact—the molecule grows in the same form, undergoing an everlasting series of births and deaths, but maintaining its identity by its perfect similarity of reproduction. And so, as I have said, a new phase of being and action may be impressed on a portion of the nerve centres connected with sensation and motion, and may become permanent. When this occurs easily—when new modes of action are more easily impressed on some than on other individuals, such persons have a neurotic diathesis, a liability to nervous disorder.

A morbid habit is the perpetuation of what should be a temporary state and action; and it argues a diseased tendency to assume so readily a new condition.

A medicine which breaks the habit may be a substance that nips the new growth, compelling the part to return to its former development. It is like a new element introduced into a soil, destructive of particular organisms. Such may be the operation of quinine, arsenic, zinc, copper, and the vegetable nervines.

I am not so ambitious as to endeavor to construct a new theory of intermittent fever, but I strongly surmise that in the progress of discovery there will be another reaction from the modern excess of humoralism towards a modified and improved neurological pathology, and that new forms of molecular growth in nervous tissues, evolving abnormalities of nerve force, or new forms of nutrition in secretory tissues, will be discovered, de-

riving, perhaps, their pabulum from altered blood, but which altered blood will be only one of the series of changes.

Allowing, however, that intermittent fever consists mainly in toxœmia, it is not difficult to understand how in the districts where the poison is rife, there have been noticed in different seasons alternations of that disorder with purely neurotic affections. What, after all, is blood disease? Is it a mere chemical change, such as is effected in an inorganic fluid by the introduction of a new element? Chemical change there may be, but there must be far more of change in the growth and life of those organic cells which form so large a part of the fluid. A poison which may at one time act on sanguineous cells, and interfere with or modify elimination, so as to produce the phenomena of fever, may at another time have a modification which affects vesicular neurine, and occasions neuralgia and strange spasms. Those who are familiar with the history of epidemics must be well aware how interchangeable are fevers and nervous diseases. Wild maniacal dances have followed close upon black pestilences, neuralgia upon agues, etc.

Whether tonic medicines, which act chemically, are restorative or catalytic, it is probable they must enter into and take part in the cell-life, whether of the blood or the tissues.

Modern researches, especially those of M. Briquet, into the physiological operation of quinine, go to prove that its special influence is exerted on the nervous system, and that in large doses it depresses rather than excites the principal functions of that system. It is therefore conceivable that if a new form of life has been produced in that system by the operation of a malarious poison, or by any other cause, such an agent as quinine may alter and destroy it. At a certain hour in the day certain nerves begin to ache, and the pain continues for several hours, and then subsides. There must be either in the periphery or in the central termination of those nerves, some new development of nerve life. Large doses of quinine are swallowed, and the pain appears with diminished force, and in time departs.

Without pursuing any further speculation on the *modus operandi* of these medicines, which are at once tonic, anti-periodic, and anti-neuralgic, I now proceed to observe that quinine appears to

me to be of all remedies that which is most extensively and constantly serviceable in headaches, whether strictly nervous, or neuralgic. It at one time helps to remove that irritable condition of the nerves, which makes them take offense at any thing unusual in the degree or kind of cerebral action, or at what is occurring in distant organs, and at another time it proves subversive of that very condition of nerves in which the paroxysm of pain consists. It would be less frequently productive of disappointment were it given more liberally and more unflinchingly. Small doses will not avail. And we must be prepared to set aside, or to pacify the fears of our patients, who from the peculiar sensations in the auditory nerves are beset with phantoms of plethora and apoplexy.

If the case has been of recent origin, three grains of quinine thrice daily will usually be a sufficient dose. But if it has been of long standing we must double this quantity, and in some instances ten-grain doses must be administered thrice in the day.

Many substances may be advantageously combined with the quinine in order to render it more agreeable to the stomach, especially sedatives, such as extract of hemlock and of hops. I generally administer it in the form of pills, as being more convenient, and less disturbing to the stomach. When the liquid form is used we may add hydrocyanic acid if needful.

Other combined substances may be auxiliary to the specific influence of the quinine, as in the well-known formula of quinine, compound galbanum pill, and hemlock.

Every one to whom I am speaking is familiar with that peculiar affection of the hearing which is complained of by those who take quinine in large doses. It is often, as I have hinted, so troublesome as to deter the patient from persevering with the remedy, especially when, as is common with those who suffer headache, there is an impression on the mind that the vessels of the head are disposed to fullness. It may be a reason for moderating, but not for withdrawing the remedy.

We have seen when considering the probable seat of the pain in headache, that the ganglionic nerves which accompany the blood vessels, and are distributed over the membranes and the substance of the encephalon, are the nerves affected. Now

if one thing be more distinctly proved by observation than any other, as to the action of quinine, it is that this substance lowers the frequency of the heart's pulsations. This must be effected through the nerves which determine the rate and rhythm of those pulsations, and which are ganglionic. There is here therefore an analogical reason for expecting that quinine may exert a special influence on those nerves which accompany the cerebral vessels.

Next in importance to quinine as a remedy for headache, comes arsenic. It is not surprising in endeavoring to account for its medicinal action, whether as a remedy for ague or for neuralgia, we should think of its poisonous power, and therefore presume it to be catalytic, or destructive to some materies morbi. Whether its action is so purely catalytic, or whether it consists in disturbing or overcoming abnormal forms of growth in the tissues, is difficult to determine. But while we know that in the normal state of the body it produces only two appreciable effects on the mucous membranes, the skin, and the nervous system, we need not look further for the wonderful control which it exercises over diseases of the skin, and over obstinate neuralgic affections. The very extent of its power is an inconvenience in the employment of this substance.

The form of headache in which I have found it most efficacious, has been not so much that which springs from an excessive irritability of the cerebral nerves, as that which comes in distinct paroxysms, and at regular intervals. These are cases in which, after the termination of a paroxysm, the nervous matter grows gradually again into that form which eventuates in a paroxysm. This growth is destroyed by the arsenic. If the hypothesis of a toxic agent be preferred, an agent requiring a certain time for its elaboration, and then for its destruction in the paroxysm which it has induced, we may say that the arsenic has in some way prevented the formation of the agent, perhaps by a quasi-chemical process.

In the administration of this medicine I have preferred small doses—three or four minims, largely diluted, taken thrice daily, and continued for periods of time varying from two to four months.

A long interval separates the degree of value possessed by

these two remedies for headache, from that which belongs to any other agents. Still there are other remedies, not without importance, to which we may be driven by the idiosyncrasies of our patients. According to my own experience, the first in this class is zinc. The oxide and the sulphate have to be given for a long time before they produce any decided effect, but the patience of the physician and of the sufferer will generally be rewarded, especially if a steady and well graduated augmentation of the dose be enforced, as the stomach becomes more tolerant of it. To eke out the time, to gain temporary advantages satisfactory to the feelings, and confirmatory to the confidence of the patients, until the more permanent good has been effected, it is well to combine the zinc with some neurotic cordial. Camphor avails in one, galbanum or castor in another, or musk, or sumbul, and the rest of these singular nervines. But none of these combinations can compete in convenience and efficacy with that invaluable salt, the valerianate of zinc. Many years before this substance was introduced, I had been in the habit of prescribing a well-known combination of oxide of zinc, extract of valerian, and extract of hyoscyamus, with a degree of benefit which had often far exceeded my expectations. And I remember the eager interest with which I first observed in one of the foreign journals the announcement of this new combination of zinc and valerianic acid.

If I may venture on such a remark, I should say that, judging from the prescriptions which I have met with, this medicine is usually given in doses far too small. My own knowledge of the larger doses was, in the first instance, accidental. For a lady suffering a singular laryngeal spasm after influenza, I had prescribed a grain of valerianate of zinc in a powder (as she was unable to swallow a pill,) to be taken every three hours. Six grains had been directed to be distributed into six powders, but the dispenser had sent six powders, each containing six grains. In the morning I found that the powders had been taken with marvelous benefit, and no distress to the stomach. I need not say that this accidental lesson was not lost upon me, and that I have since prescribed the medicine in bolder doses than previously.

Iron may perhaps be classed next to zinc in value. Some practitioners would place it higher. When neurotic susceptibility is conjoined with poverty of coloring matter in the blood, its value can scarcely be over praised. But even without this conjunction there are cases in which ferruginous preparations have great efficacy ; but we are oftener checked in the use of this metal when we administer it in other diseases, by complaints of the pain or distress which it excites in the head, than by any other symptoms attendant upon its use. Still every practitioner must have remarked its signal utility in cases of headache with great debility, especially when the constitution has been worn down by previous disease. The carbonate has been used more frequently than any other form for the cure of strictly neuralgic headache. It is difficult to find a reason for the preference which many have given to this preparation, unless it be, that as it is very partially soluble, and is therefore given in large doses, it enters the system in very minute quantities at a time. Perhaps, as it is applied to so extensive a surface in the gradual travel of its large quantity through the tube, more may eventually enter the blood than when a small dose of a more soluble salt has been taken.

Of copper I have very little experience as a remedy for cephalalgia. I have used it in the form of ammoniaret, as in epilepsy, but with no very decided results. Were I pressed for a new agent, or a new combination in some very refractory case, I should try small doses of the sulphate of copper, in combination with quinine, as in Sir Henry Halford's favorite combination for epilepsy.

Nickel was first brought before the notice of the profession by Dr. Simpson He one day introduced me to a gentleman who had been a sufferer in an unusual degree, and for a long time from headache, and in whom sulphate of nickel had been of more avail than other remedies, but I did not learn what those other remedies had been. I have since then employed it in several cases, and I think always with some benefit : the dose has been a grain thrice daily.

It is highly probable that all the metals have more or less control over those new forms of neurotic life in which nervous diseases consist, and we may yet add some shafts to our quiver.

tipped with selenium, cerium, and cadmium, to which Dr. Simpson has directed the attention of the profession.

When speaking of quinine, I ought to have remarked that bebeerine in large doses, has seemed to me to act in a manner very similar to that of quinine.—*Vir. Med. & Sur. Journal.*

PROXIMATE CAUSE AND SPECIFIC REMEDY OF TUBERCULOSIS.

Dr. John Francis Churchill has recently presented to the French Academy, a paper with the above title ; which is a bold venture to say the least of it. If he has succeeded in cutting the Gordian knot which has so long defied the ingenuity and industry of the world, and has solved the mystery of " the cause and the cure of consumption," he accomplished a result, in comparison with which every other achievement of the age sinks into insignificance. We are fearful, however, that he promises too much, and that like many a discovery which has startled the world and delighted the profession with the promise of great things, it is destined to prove a chimera and a delusion in the end. These are the conclusions of the author in the paper presented to the French Academy.

" The total number of cases of phthisis treated by me amounts to thirty-five. All were in either the second or third stages of the complaint ; that is, they had either softened tubercles or cavities in the lungs. Of these, nine recovered completely, the physical signs of the disease disappearing altogether in eight out of that number ; eleven improved considerably, and fourteen died ; one still remains under treatment.

" I believe that the results, of which the preceding is a summary, taken in connection with the considerations I have set forth at length in the paper now in the hands of your honorable secretary, will be found to justify the following conclusions :

" The proximate cause, or at all events an essential condition of the tubercular diathesis, is the decrease in the system, of the phosphorus which it contains in an oxygenizable state.

"The specific remedy of the disease consists in the use of a pre-

paration of phosphorus, uniting the two conditions of being in such a state that it may be directly assimilated, and at the same time at the lowest possible degree of oxydation.

"The hypo-phosphites of soda and lime are the combinations which hitherto seem best to fulfill these two requisites. They may be given in doses varying from ten grains to one drachm in the twenty-four hours. The highest dose which I have been in the habit of giving to adults is twenty grains.

"The effect of these salts upon the tubercular diathesis is immediate, all the general symptoms of the disease disappearing with a rapidity which is really marvellous.

"If the pathological deposit produced by the dyscrasy is of recent formation, if softening has only just set in and does not proceed too rapidly, the tubercles are absorbed and disappear. When the deposit has existed for a certain time, when the softening has attained a certain degree, it sometimes continues in spite of the treatment; and the issue of the disease then depends upon the anatomical condition of the local lesion, on its extent, and upon the existence or non-existence of complications. I have made numerous attempts to modify the local condition of the lungs by the inhalation of different substances, but have never obtained any satisfactory result independent of what was to be attributed to the specific treatment. The hypo-phosphites of soda and lime are certain prophylactics against tubercular disease.

"The physiological effects which I have observed to be produced by the use of the hypo-phosphites of soda, lime, potash and ammonia, show these preparations to have a two-fold action. On the one hand, they increase the principle, whatever that may be, which constitutes nervous force; and on the other, they are the most powerful of hæmatogens, being infinitely superior to all medicines of that class hitherto known. They seem to possess in the highest degree all the therapeutical properties formerly attributed by different observers to phosphorus itself, without any of the danger which attends the use of that substance, and which has caused it to be almost forgotten as a medical agent. The different preparations of hypo-phosphorous acid will undoubtedly occupy one of the most important places in the materia medica."—*Am. Jour. Phar.*

ON THE TREATMENT OF ERYSIPELAS WITH IRON.

By G. W. Balfour, M. D.

In consequence of having witnessed the cure of a case of erysipelas treated with iron, under the joint care of Dr. Charles Bell and myself, and also in consequence of Dr. Bell's assurance of its great and unfailing success, I was induced to give this method a trial, and this the more readily that opinions were very much divided regarding the proper treatment of this disease, and I myself had no great confidence in any. Since that time I have treated all my cases, upwards of twenty, with iron, and have had no cause to regret my doing so. On the contrary, erysipelas is one of the few diseases for which I now believe we have a certain and unfailing remedy, and this whether it be infantile or adult, idiopathic or traumatic. The first case so treated was a highly scrofulous woman, with erysipelas of the scalp, arising from irritation of two large sores on it. She was cured in three days. The second was a man with erysipelas of the foot and ankle; cured in two days. The third was a case of traumatic erysipelas of the scalp in a woman; she was ill for a day or two before being seen, but was cured in about five days' treatment. The wound, a deep cut about three inches long, was healed within a week. In short, all the cases, many of them very severe, and accompanied with high delirium, some of them phlegmonous, others vesicular, and several occurring in children, were cured in less than a week on the average. Suppuration took place in none but two—in both of whom the treatment was not commenced till after effusion had taken place. Their convalescence was, of course, more tedious. The ninth day was that on which convalescence commenced, even in the most severe cases, and *probably* the course of the disease would have been shorter even in them had the medicine been given more regularly; for so sure is it in its effects, that I can, with I may almost say absolute certainty, predict the state of the patient on ascertaining the quantity of the drug taken, and a glance at the bottle is fully as informing as to the state of the disease as a look at the affected parts themselves.

The tincture of the muriate is that preparation of iron I have hitherto employed, the dose varying with the age of the patient:

the great object being to saturate the system with iron as speedily as possible and to keep it so till the disease is abated. A few doses suffice to remove the pain, and lessen the heart's action; it acts also as a diuretic, and to some extent corrects the secretions, often cleaning the tongue as well as any purgative. It never produced headache nor other unpleasant symptom, and was continued with advantage throughout the highest delirium. The only other remedy employed was an occasional purgative, and the local application sometimes of a warm poultice, and at others of simple flour or starch powder and cotton wadding, the poultice being preferred, perhaps without much reason, when the situation or extent of the part affected did not throw difficulties in the way of its application.

Its principal curative action seems, as Mr. G. Hamilton Bell supposes, to be exerted on the capillary vessels; and for this reason, that while its diuretic action is equally well maintained by smaller doses, less frequently repeated, its curative action is not obtained unless the system be saturated with it, and kept so for some time. Further, without denying that it may act as a renal purgative in disease, I may add that from some experiments on myself, it does not seem to do so in health. The quantity of the urine was much increased, by fully a half, yet the quantity of urea was increased relatively and absolutely only to so small an amount, a grain or two in twenty-four hours, as to be far within the usual limits of aberration, and much too insignificant, supposing it to be real, to account for the wonderful curative agency of the drug. On taking twenty minims of the tincture every two hours, the second and third doses produced some slight degree of tenison in the head, a symptom which subsequently ceased, and did not return. At this period too, the pulse was slightly accelerated, possibly from nervousness, it afterwards came down from 80, my usual average, to 64. The iron was taken at intervals of four days, regularly every two hours for the last twelve hours. Its diuretic action was always established within an hour after taking each dose; no iron could be detected in the urine, nor in the serum of the blood; but as this may depend on my want of refinement in chemistry, I am willing to give any chemist who may be anxious, another opportunity by repeating the ex-

periment; for I know of no method of treating any disease more worthy of investigation, and none more deserving of adoption by the profession than the treatment of erysipelas with iron. Some have supposed its efficacy to be owing to its *stimulant* action. That this is not the case was well shown in a case I had recently under my care—a young man laboring under scarlatina, who had a patch of vesicular erysipelas over the sacrum, and one over the right armpit. Neither of these were at all influenced by the carbonate of ammonia, employed in the treatment of the co-existing scarlatina, but yielded at once to twenty-four hours' treatment with the muriate of iron.—*Monthly Journal.*

MARSHALL HALL'S RULES FOR TREATMENT OF ASPHYXIA.

(1) Place the patient gently on the face—to allow all fluids to escape.

(2) Then raise the patient into the sitting posture, and endeavor to excite respiration.

(*a*) By snuff, hartshorn, etc., applied to the nostrils.

(*b*) By irritating the throat with the finger or a feather.

(*c*) By dashing hot and cold water alternately on face and chest.

(3) Replace the patient on his face, his arms under his head, that the tongue may fall forward and leave the entrance into the wind-pipe free, &c.

(4) Turn the body gradually, but completely on the side, and a little more, and then again on the face alternately, (to induce inspiration and expiration.)

(5) When replaced, apply pressure along the back and ribs, and then remove it, and proceed as before.

(6) Let these measures be repeated gently, delicately, but efficiently, and perseveringly, *sixteen times* in a minute *only*.

(7) Continuing these measures, rub all the limbs and trunk *upwards* with the warm hands, making firm pressure, energetically.

(8) Replace the wet clothes by such other covering as can be procured.

These are the conclusions of common sense, as well as the results of physiological experiment, and they deserved to be treasured in the recollection of every practitioner of medicine.

SURGERY.

MULBERRY CALCULUS IN THE URETHRA.

A rather novel, and at the same time interesting case of stone came under observation at St. George's Hospital recently, in a little boy twelve years of age. Mr. Prescott Hewitt introduced a catheter into the lad's bladder on one occasion, and as it passed toward the arch of the pubis, he thought he felt the point of the instrument grate against some hard substance, but nothing was detected within the bladder. Next day the patient suffered from retention of urine, which was relieved by the catheter, and again the hard body was felt on the back part of the urethra. Mr. H. then got a long probe, which he bent like a hook, and passed it along the urethral canal, at the back of what was now ascertained to be a calculus, and which he gently hooked forward until it lay in the canal, just behind the scrotum. The lad was then secured in the usual way, and the stone removed by a small incision in the mesial line. He saw the little fellow on the 25th February, nine days after the operation,—and found him going on without a bad symptom. The stone was oval, three quarters of an inch long, the ends sharp, and a quarter of an inch in diameter, and composed of the oxalate of lime. We heard Mr. Hewitt say he had a similar case about two years ago, which he proceeded to remove in the same manner,—but the stone slipped into the bladder, and at the same sitting he performed lithotomy, and removed the calculus successfully. The whole proceeding thus becomes a very simple one, when the stone can be removed through the urethra.—*London Lancet.*

AFTER-TREATMENT OF SURGICAL OPERATIONS.

Dr. Broadbent, in a paper read before the Liverpool Medical Society, session 1856-58, referred to the object sought,—that of union by the first intention. He believed one of the most common obstacles to this union, to be the occurrence of hemorrhage, one or two hours after the operation, not to such an extent as to require the removal of the dressings, but sufficiently to form a coagulum of such size as seriously to interfere with the union of the wound,—acting in fact as a foreign body. The cause of this appeared to be, that in amputations, etc., when the surfaces were brought together immediately after the completion of the operation,—the vessels were tied, whilst the patient was still suffering from the shock of the operation, or it might be, was somewhat depressed by the after-effect of chloroform,—whilst the more minute vessels were prevented from oozing by exposure to the air, and that when reaction took place, the hemorrhage came on. The author thought that those cases in which this occurred to such an extent as to necessitate the reopening of the wound, usually terminate more favorably than others. He therefore advocates the plan of postponing dressing until all oozing has ceased, and the cut surface had glazed over. The unnecessary removal of dressings, he believes to be another frequent cause of non-union. He thought that the sutures having been removed, the bandages, etc. should remain untouched till the third or fourth day, and should then be carefully cut off. The inability of the patient to maintain the required position, acted in the same way, and to obviate this, it was suggested that the patient should before the operation be habituated to the position in which he would have to lie after it. In the maintenance of the position of the parts, by means of pressure, the author believed that small air-cushions might be advantageously used instead of pads of lint.—*American Jour. Med. Science.*

PHOSPHATE OF LIME IN SPINAL CURVATURE.

M. Piorry states that he has long been in the habit of administering phosphate of lime with advantage to ricketty patients

suffering from curvature of the spinal column. He gives it in the form of very fine filings of fish bones. About one ounce is given daily, either in milk, or better still in rice milk,—which effectually disguises the disagreeable taste. He does not attribute all the improvement to this, as a highly nutritious diet is simultaneously employed ; but certain it is, that in several patients in whom the spinal column had deviated more and more every year, and who were subjected several months to good regimen, free exposure to light, a dry and warm temperature, and especially employing the phosphate, the progress of the affection has become completely arrested. And the numerous cases in which the treatment has proved of benefit in Pott's disease, suggests that it may be of great utility in the rickets of childhood, and to osteomalacia of adults. M. Piorry thinks it may prove useful to women threatened with softening of the bones in pregnancy—combining it then with iron. Likewise children, when nutrition is defective and the limbs are distorted, may benefit by it ; while in certain tuberculous subjects it may favor the process of calcification.—*Gaz. Des. Hop.*

If these conclusions be correct, would not the phosphate of lime prove of great advantage when the fragments of fractured bones fail to unite properly ?—Editor.

ELASTIC LIGATURES.

An elastic thread being stretched to its fullest extent, is tied in a single knot, slipped over the body of the tumor, and then securely fixed by a double knot. By its own elasticity it contracts again as quickly as possible, and what was originally a large noose, is thus reduced to the *smallest* possible size. Strangulation follows, of course, and the tumor dies and falls off in a few days.

By this method a great deal of pain is saved to the patient, the use of the knife is frequently avoided, and even the fashionable écraseur itself is, to a great extent superseded. Fistula is, and may be treated in the same manner; the thread being allowed to cut its own way through the sphincter.—*Med. Times and Gazette.*

AMYLENE.

Mr. Giralds recommends amylene for children, on the following grounds: (1) "It is respired more easily. (2) The effect is more rapid. (3) The sleep is more natural. (4) They return more readily to their natural condition. (5) There is no after inconvenience."

To these may be added the additional considerations, that it prevents pain with less stupor than is occasioned either by chloroform or sulphuric ether, and that no struggling or rigidity takes place after its exhibition. The pungent smell and large quantity required to be used, constitute, however, some obstacle to its employment. Dr. Tyler Smith has taken strong ground in favor of substituting it, in cases of midwifery, for the anaesthetical agents usually resorted to. It is well known that the Commission appointed by the French Academy to investigate the properties of amylene, consisting of M. M. Robin, Velpeau, and Malgaigne, have made a report which is both favorable and unfavorable to it. That is, they say that for certain purposes, viz., in slight and very painful operations, where immediate agitation and subsequent nausia are especially to be avoided, where a very short anaesthetic slumber is desired, where the subject to be operated upon is a child, or affected with some disease of the air passages, this agent should be employed; whilst on the other hand, when long and difficult operations have to be performed, when muscular contraction has to be overcome, &c., they demand for chloroform the first place in the estimation of the profession.

In this connection, Velpeau remarked that he had used chloroform, at least five or six thousand times, without a single accident, which is certainly a most wonderful instance of good fortune. We remember, however, having seen him administer chloroform on one occasion to a woman, whose breast he amputated with his usual dexterity. On the succeeding morning, her bed was empty, and in explanation he remarked that she had died some hours after the operation, without any appreciable cause. Whether this unfortunate result was due to the chloroform inhaled—for she had not entirely recovered from the effects of it, when the attention of the class was directed to another case—or to some other cause, we were never able to determine.

Dr. Snow reports one case of death from this agent; and M. Robin believes that it is not less dangerous then chloroform or ether; although, to convert the anaesthetic dose into a poisonous one, it is necessary to give triple the quantity administered.—EDITOR.

INTUSSUSCEPTION TREATED IN A NOVEL MANNER.

In the *Southern Medical and Surgical Journal* we find the following, which is part of a report of a case by Dr. Tate, of West Point, Ga.:—

"*March 17th*, 8 o'clock A. M. Dr. D. arrives. Upon being informed of what had been done, proposed putting the patient under the influence of chloroform, and again attempting the reduction of the hernia. The suggestion was adopted. Dr. D. failed in his attempts at reduction. Whereupon I proceeded to operate for strangulated inguinal hernia, and accomplished in this way the reduction of the strangulated portion of intestine.

"At noon, two hours after the operation, patient still continues to vomit and hiccough—says he is relieved of pain at the point of strangulation, but suffers intensely near the umbilicus (to the right of umbilicus). Prescribed ℥iss of castor oil, and renewal of the injections of warm water, using no salt. This treatment was continued until 10 o'clock at night, at which time I procured a pump syringe, and with it threw into the bowels six pounds of warm water, which was soon ejected without either smell or color; I then proceeded, after the lapse of an hour, to inject water slowly into the bowels, until they retained the enormous amount of one gallon.

"Croton oil had been given since 6 o'clock A. M., in four drops at a dose, repeated every hour until sixteen drops were given, without the least effect upon the bowels being manifested.

"*18th*, 2 o'clock A. M. Being well satisfied that an intussusception, or other mechanical obstruction, existed above the strangulated point, and having, as I conceived, used every remedy worthy of trial in such a case, I determined to proceed upon my own responsibility, let consequences be as they might; therefore,

I began again the use of warm water enemas, throwing them into the bowels slowly and cautiously ; and after having introduced, by a pump syringe, one gallon of water, I next dissolved 40 grs. of *tartaric acid* in ℥iv of water, introduced that into the intestine; had a large compress prepared and placed in the hands of a strong negro fellow, with instructions to apply it to the *anus*, and hold it there, so as effectually to prevent the escape of either gas or water after I should introduce 40 grs. of *bi-carb. of soda*, dissolved also in ℥iv of water. The soda was introduced, the compress used admirably, and poor Will rolling on the floor, crying at the top of his voice, 'I shall burst, I shall burst—take that thing away, my bowels are tearing in two.' The compress was removed : gas, water and fecal matter escape freely, to the astonishment of all bystanders. In half an hour the same amount of warm water, tartaric acid and soda were used again, and with the same happy effect.

"The only medicine given after this was calcined charcoal, which passed through his bowels without difficulty. All being well satisfied that the obstruction was fully overcome, and Will declaring himself cured, he was discharged on the 20th."

STRICTURES OF THE URETHRA.

Dr. Thielman (*Med. Gaz. of Russia* 1857) has, for thirteen years, treated strictures of the urethra solely with iodide of potassium. Twenty-seven cases in the St. Peter and Paul's Hospital, at Petersburg, of different degrees of intensity, were cured solely by this means. The cases were generally of long standing, and in the majority of cases accompanied by gleet. A solution of ℥ij of the iodide to f℥vj of water was given—a teaspoonful three times a day. When the specific effect of iodine set in, smaller doses were given, till the patient could bear the full dose. The first effect of the remedy is an increased gleety discharge, and subsequently a "melting down" of the cicatrized tissue constituting the stricture. The stream of urine soon becomes larger, and finally assumes its normal size. The duration of treatment was from two to eight weeks. In cases where the stricture could

be felt externally, iodine ointment (℥j to ℥j) was applied. The gonorrhœal discharge in many cases ceased spontaneously, while in the rest it was removed by the usual means.—*Medic. Neuigk.*

MIDWIFERY.

ON THE ELECTRICAL TREATMENT OF AMENORRHŒA.

By the late Dr. Bird.

The following remarks of Dr. Bird, are so full of interest, that we extract them from his pamphlet on "Electricity and Galvanism, in their Physiological and Therapeutical Relations:"—"We have twenty-four cases of amenorrhœa reported: the youngest 15, the eldest 25 years of age, all unmarried:

"Of these, 4 were chlorotic, 6 but slightly so, 12 not at all so, and 2 complicated with hysteria.

"Of these, the remedy succeeded in all except the four chlorotic girls.

"In electricity we possess the only really direct emmenagogue which the experience of our profession has furnished us with; I do not think I have ever known it to fail to excite menstruation where the uterus was capable of performing this function. Disappointment will, however, most certainly result, if we have recourse to electricity merely because a girl does not menstruate; and we must never lose sight of the fact, that, after all, the large majority of cases of amenorrhœa depend upon an anæmic condition; and the patient does not menstruate, simply because she has no blood to spare. Nothing can be more ridiculous than applying electricity, or any other local stimulant to the uterus when chlorosis exists; the first great indication will be, to restore general health, give iron to make up for the previous deficiency of that element in the blood, and then, and not before, think of stimulating the uterus. It is true that, in a large proportion of cases, the catamenia will appear as soon as the chlorosis is cured,—of course, in such cases, there will be no need of the employment of electricity; but still a large number will occur, in which, even after the complete relief of the chlorotic and anaemic condition, the uterus remains torpid and refuses to

act. In such cases, a few shocks, transmitted through the pelvis, seldom, if ever, fail in effecting menstruation. I have repeatedly known the catamenia, although previously absent for four months, appear almost immediately after the use of electricity; in more than one case the discharge actually appeared within a few minutes. The mode in which electricity has been generally employed, has been by transmitting a dozen shocks from an electric jar, holding about a pint, through the pelvis; one director being placed over the lumbo-sacral region, the other just above the pubes. In private practice, in which the employment of the cumbrous electric machine is very inconvenient, I have substituted with advantage the induced currents of the electro-magnetic apparatus, the conductors being placed as before. The alternating current may be used in these cases, as the electricity appears simply to act as a local stimulant, quite independent of exciting any uterine contraction."

A NEW MODE OF TREATMENT FOR PROLAPSUS UTERI.

By M. Desgranges.

M. Desgranges, surgeon to the Lyons Hospital, has laid before the Academy of Medicine of Paris a new mode of remedying the uterine displacement. It consists in pinching up the mucous membrane of the vagina, after reduction, with little forceps, or "serres fines" of Vidal. The forceps produce ulceration, and fall off from the fifth to the tenth day; and M. Desgranges repeats this operation eight or ten times, taking care always to leave as many of the forceps as possible. At the commencement, he introduces as many as nine; later, from six to four; and at last, towards the end, only one of the little instruments. The treatment lasts in general two months and a half, or three months.

It will be seen that this method rests on the fact that the narrowing of the passage may prevent any further descent of the organ, the loss of substance and cicatrization being instrumental in the result.

For assisting the memory of our readers we shall just transcribe the various analogous operations which have been pro-

posed, as given in a very good article of the *Bulletin de Therapeutique :—*

1. Excision of a few folds of the vaginal orifice, as practised by Dieffenbach, in imitation of Dupuytren's mode of excising some folds of the margins of the anus in prolapsus of the rectum.

2. Excision of a broad longitudinal flap of the mucous membrane of the vagina, either elliptical (Dr. Marshall Hall) or square (Dr. Ireland), and the immediate apposition of the lips of the wound by suture.

3. Cauterization of the mucous membrane, so as to harden the tissues by suppuration, and obtain union between the walls of the vagina and the surrounding organs (Laugier).

4. Excision of a semicircle of the vaginal orifice, and immediate apposition by suture, in acting either on the anterior or posterior circumference.

5. Episioraphy, practised by Fricke, of Hamburg. This consists in paring the inner surfaces of the labia majora, and bringing them together by suture.

6. Complete obliteration of the vagina, proposed by M. Romain Gerardin. This operation has never been practised upon the living subject, and could hardly be thought of before the cessation of the catamenia.—*Lancet.*

CÆSAREAN SECTION PERFORMED AFTER DEATH OF THE MOTHER—RECOVERY OF THE CHILD.

By F. R. Owens, M. D.

August 28th, about 1 o'clock P. M., I was called to visit Mrs. Q.; 32 years of age; has been married seven years, and has borne three children. Her first pregnancy terminated in a miscarriage at four months. Has had phthisis for the last twelve months, and been gradually sinking.

When I arrived, the friends stated that she had been dead some minutes, and they were anxious about the child. She had been attacked with a severe fit of vomiting, which terminated in large gushes of blood in quick succession, till it had filled a large chamberpot, and she sunk exhausted in a shorter time than it

takes to relate it. I felt her wrist and heart, and held a glass to her mouth, but no evidence of vitality existed. She was in the last month of pregnancy, and some women present had felt the child moving. I hurried to my office for instruments, and when I returned and found no change, I immediately performed the Cæsarean section through the linea alba, and extracted from the uterus a male child of eight months, and apparently lifeless. I put it immediately into warm water, inflated the lungs, applied stimulants to the nose, &c., &c. About fifteen minutes after the operation, pulsation commenced, which extended along the cord about eight inches from the abdomen, very feeble at first, but gradually gaining force, and inspiring hope and encouragement to continue our efforts to increase the little life it had. After an hour's persevering effort, it gasped once, then again, and a few minutes after the heaving of the little chest denoted the perfect establishment of the respiratory function. I had it wrapped up warm in cotton, wool and flannel, and kept near the fire. About three hours after the operation, it began to cry pretty strongly. It is now seven weeks old : it nurses and feeds well, and is thriving.

TREATMENT OF VAGINITIS.

M. Thiry prescribes, in the mild form of vaginitis, first, a bath and saline purgative ; then, removing the vaginal mucus, he sprinkles over the inflamed surface finely powdered charcoal or Peruvian bark, and completes the dressing by isolating them by means of a tampon. The tampon is allowed to remain from three to five hours, and on its removal emollient injections are employed ; usually, in about six days, the cure is complete. In acute vaginitis he employs the same treatment, but precedes the application of the absorbing powder with a rapid cauterization of the inflamed surfaces with the nitrate of silver. A single cauterization usually suffices, and the cure is complete in eight days. He also employs the cautery and absorbing powder in follicular vaginal inflammation, which is ordinarily observed at the neck of the uterus, and is characterized by red conical eminences, and abundant secretion.

TWINS BORN AT AN INTERVAL OF FORTY DAYS.

A case is related in *Ann. Méd.* in which a female, aged 24, healthy, of regular menstruation, and primipara, gave birth, after a short and regular labor, to a fully developed but feeble infant, which died eight days after. The placenta was delivered by natural efforts. The abdomen did not, however, completely subside: active movements were still experienced by the mother, and neither lochial or lacteal secretion was observed. No other particular symptom was manifested until the fortieth day after the birth of the infant, when she gave birth to another, feeble as the first, but evidently having arrived at full maturity. The lochial flow and secretion of milk now appeared.

PUERPERAL FEVER.

We take the liberty of transcribing from the *American Medical Monthly*, the following article on Puerperal Fever, which is an abstract from the debate on that subject in the Paris Academy of Medicine. The discussion sprang up incidentally in connection with the consideration of a case of abortion, related by Mr. Guerard.

M. Depaul ascended the Tribune and asked—

Does there exist a real puerperal fever? The affirmative answer to this question meets with few opposers at the present day, but the name of puerperal (from the Latin word *puerpera*, lying-in woman) has given rise to great confusion in the mind, by causing us to mistake one for the other, the different important conditions occurring among women after delivery.

As for me, says M. Depaul, who am entirely convinced of the essential nature of the malady, and who accept, without reserve, the opinion of those who make it consist in a primitive alteration of the blood, I would greatly prefer to see adopted the term puerperal typhus or puerperal septæmia.

Puerperal fever, however, has been known from the earliest periods, but from the time of Hippocrates up to the commencement of the 18th century, it was attributed to the suppression of the lochia.

In 1686 Pazos attributed it to the deviation of certain principles of the milk.

In 1781, Ed. Strohter—and not Willis, as has been frequently said—was the first who introduced into science the name of puerperal fever; he located it in the inflamation of the uterus or some other organs, and in that he has been imitated by Burton, Smellie, Th. Cooper, Gorse, Gardien and others. G. Hunter, in 1776, considers peritonitis as the primitive lesion of puerperal fever. Sennert, L. Riviere, Willis, White, etc., regard puerperal fever as a bilious, malignant, putrid fever. Duges, in 1824, and Hinterberger, in 1830, promulgated the opinion that myelitis constituted one of the forms of puerperal fever. In a word, and not to carry this historical sketch too far, we may say, that the authors who have preceded us may be divided into two categories: those who recognize a fever without a local lesion, and those who derive it from a local lesion. There is the same difference at the present time, but we must observe that defenders of the essential nature of the disease are much more numerous among obstetricians and specialists.

The proofs of the essential nature are drawn from the epidemic nature; from the influence of the medical constitution on persons who live in the midst of the epidemic; from the fact that it can attack persons who are in none of the conditions of the puerperal state; from the fact that it may seize upon pregnant women, and kill them before delivery; from the fact that the first symptoms may appear during labor or a few hours after; from the fact that its influence may be exercised even upon infants enclosed in the uterine cavity.

Other proofs are drawn also from pathological anatomy. Thus, often no lesions are found, and when they are found, they are multiplied in the same woman, and variable (in respect to frequency) in different epidemics.

In order to prove that puerperal fever is transmitted by infection, M. Depaul gives certain statistics of mortality in different hospitals in which there are wards for lying-in women; it results from these statistics that the mortality in the hospitals, wherever they may be, is out of all proportion with the mortality of the poorest and most unfavorably situated quarters. Thus at the Maternitè and the Clinique, in 1856, the mortality was 1 out of 19 deliveries, while in the 12th arondissement it was only 1 out of 322, that is to say seventeen times less.

But, he adds, the strongest proof of its essential nature, is that the blood is changed, even in the case in which there is no local lesion. All those who have made autopsies are struck,

1. By its slight tendency to coagulation.
2. By its liquid condition.
3. By its gooseberry jelly color, violet, tinging the tissues.
4. By its oily consistency.

Although chemical analysis and microscopical research may not have much advanced the investigation, the following are some results which have been published by Prof. Vogel in the *Manuel de Virchow:*

1. The blood is acid, which is due to the presence of lactic acid.
2. Carbonate of ammonia is found in it.
3. It also contains the sulphydrate of ammonia.
4. The globules have lost the power of reddening in the air, and can no longer be of use in the act of respiration.
5. The globules were partly decomposed, and dissolved in the serum, which presented a reddish or dirty brown color.

Lehmann (Chimie Physiologique) discovered in the blood the coloring matter of bile; and M. Scanzoni says, that the researches of pathological chemistry have demonstrated in the blood:

1. An increase of fibrin.
2. Sometimes a veritable pyaemia (the other elements being nominal)
3. In other cases, a dissolution, or putrid condition, which constitutes the septæmia.

The changing of the blood is therefore certain, adds M. Depaul; as to the real nature of the poison which changes it, it is a mystery thus far impenetrable.

I approach now the second question—Has puerperal typhus peculiar characteristics?

Yes, in the vast majority of cases we may recognize puerperal fever by the following signs:

1. The simultaneous appearance of several symptoms which are peculiar to it, and of which I shall speak, (these are no pathognomonic signs.)
2. The period at which they occur: first hours after labor; very rarely after the eighth day.
3. Almost constant chill, unique in many very intense cases, and followed by slight reaction; it rarely fails.
4. Frequency of the pulse, which is rarely below 120, and often as high as 165, small, diffusible, wavering, soon threadlike; rising and falling by turns.
5. The warmth of the skin is moderate, and not in proportion to the acceleration of the circulation.

6. The respiration is short, anxious, broken by profound inspiration. These disturbances may be observed from the commencement.

7. Momentary aberration of the intelligence; hesitation in speech.

8. Marked alteration in features.

9. Pain in the joints, at the shoulder, elbows, and wrists.

10. Abdominal pains, very variable as to the period of their intensity.

11. Distention of the stomach, ordinarily considerable, and which may, by obstructing the movements of the diaphragm, hasten death.

12. Abundant diarrhœa, which soon becomes involuntary.

13. Yellowish or greenish vomiting.

14. Suppression of the lochia, and of the secretion of the milk.

15. Finally, we must take into consideration the circumstances, that an epidemic already exists.

Such are the peculiar characteristics of the disease. It can only be confounded—and this mistake moreover is frequent—with purulent infection, putrid fever, and typhoid fever. Purulent infection is distinguished from puerperal fever by the following characteristics:

1. The attack never takes place before the eighth or tenth day, and often it is still later.

2. The chills are multiplied, and followed from the commencement by abundant and viscous sweats, recurring several days in succession, at irregular periods.

3. The skin assumes an icteric tint.

4. The urine is fetid.

5. There are abscesses in the cellular tissue, and often pus in the articulations.

6. The disease, *although mortal*, continues from eight to ten days, and sometimes several weeks.

7. At the autopsy we find phlebitis and metastatic abscesses, especially in the lungs and liver.

Putrid absorption and infection may be observed in the puerperal state, in consequence of the retention of the placenta, entirely or in part, and from the putrefaction of the fœtus following rupture of the membranes. It can be distinguished, in a general manner, from puerperal fever, in that,

1. The chills are slight.

2. The tongue is dry and fuliginous.

3. The face sallow.

4. Hectic fever supervenes, and diarrhœa, if the condition continues.

5. In the commencement, hygienic precautions are sufficient to cause cessation of the unfavorable symptoms.

6. The progress of the disease is slower than that of puerperal fever.

As to the typhoid fever occurring among lying-in women, its diagnosis can never give rise to serious difficulties.

In respect to the question of treatment, M. Depaul thus expresses himself: "It is a sad confession to make, but I believe I am within the bounds of truth, in declaring that the treatment of puerperal fever is yet to be discovered." The honorable academician then passed in review all the medicines—and they are numerons—prescribed for this terrible affection. He has tried them all, and all have failed in his hands, as well as in the hands of his teachers. The past year even, invested by M. Dubois with the charge of the *Clinique*, he applied the treatment of sulphate of quinine with which M. Beau had been so successful at the Cochin Hospital; he applied it with the full force of the formula indicated by M. Beau; preceding it with an emetic, giving it alone, in a strong dose, even producing cinchonism—all the patients died.

M. Depaul thinks that the few cases of cure which he has observed have been obtained by the aid of mercurial frictions.

The prophylactic treatment has been tried by medicine, and by hygiene.

The medicines extolled as preventives are very numerous.

In 1750, Ponteau recommended camphor. Doublet associated camphor with quinine. Quinine was also advised by Oziander, 1781, in accordance with the practice of the antiphlogistic method of treatment.

Kino was recommended by Delaroche in 1783; Stoll, considering puerperal fever as a gastric fever, recommended emetics and purgatives to prevent it; Mauriceau prescribed narcotics; Bonti, ipecac; Levret, ipecac and simaruba; M. Baudelocque, in 1830, recommended the sulphate of quinine; M. Piedagnel, in a communication to the Institute, Nov. 24, 1856, called its attention to the medicaments, the sulphate of quinine and the carbonate of iron.

The *Veratrum viride* appears to have been successfully employed in America by Dr. Barker. This physician has praised this medicine very highly, in a discussion on puerperal fever, before the New York Academy of Medicine. An interesting account of these debates can be found in the *Gazette Hebdomadaire* of Dec. 5, 1857. Veratrum veride has not yet been tried in France, as far as I know; it has until

now been impossible to procure it in Paris. From information given by Dr. Barker himself, this medicine has, like the sulphate of quinine, a powerful sedative action over the arterial system—so much so, that in an alarming case of puerperal fever the pulse was promptly reduced from 140 to 60 pulsations, and kept during the whole time of the disease below 80.

This list might be extended indefinitely, but it would be useless, for none of them have given any certain result.

As to hygienic means, nursing has been recommended to prevent the metastasis of the milk. White, to prevent the putrid matters from remaining in the genital organs, had his patients walk the first three days after delivery; while MM. Piorry and Malgaigne insist upon the usefulness of repeated detersive injections. The proper conditions of the wards of the hospital, their easy ventilation, have always been considered as indispensable, but, notwithstanding every precaution, epidemics have suddenly risen and proved most disastrous.

In view of these facts, M. Depaul asks if it would not be better to give the needed assistance to the lying-in woman at her own house than to receive her into the hospitals.

TOXICOLOGY, &c.

ON THE VENOM OF SERPENTS.

By J. Gilman. A. M., M. D., LL. D.

During a sojourn of two or three months in the interior of Arkansas, Dr. Gilman instituted a series of experiments on the various poisonous reptiles, with which that country abounds, and we design giving our readers the result of his experiments.

Dr. Gilman found, in that country four varieties of the rattlesnake (*Crotalus,*) one of them the *Crotalus Horridus,* being the largest serpent in North America. The family of moccasin snakes (*Colluber*) is also a numerous one, there being not less than ten varieties, most of which are quite as venomous as the rattlesnake. The anatomical structure of the poisonous apparatus is similar in all the different varieties of venomous serpents. It consists of a strong frame work of bone, with appropriate muscles, resembling a pair of jaws, but externally to the jaws proper and much stronger. One or more fangs just at the verge of the

mouth are attached to these by a ginglymoid articulation ; these fangs are capable of being erected at pleasure, they are sharp and crooked, shaped like the claws of the cat ; hooked backwards, and with a hollow from the base to near the point. Sometimes this cavity is divided by a thin layer of bone, making thus two canals. At the base of these fangs, is found a small sac containing two or three drops of venom, resembling thin honey. A slight upward pressure forces this poison through the canal, and it makes its exit by a small opening at the point with considerable force. The fangs when not erected, lay like a knife blade between the two jaws, where they are covered by a membrane which encloses them like a sheath, this is the *Vagina Dentis*. These fangs are frequently shed, to make room for others still larger ; Dr. Gilman found in a large crotalus horridus, five fangs on each side in different stages of formation.

By the administration of choloroform these snakes were easily robbed of their venom ; whilst under its influence they were carefully seized by the neck, and the vagina dentis being held out of the way by an assistant, the fangs were gently pressed upward, when the venom would issue from the point, and be caught in a vial or on the point of a lancet. After depriving several serpents of their venom in this way, they were found after two days to be as highly charged as ever with poison.

Dr. Gilman found that plants inoculated with this venom introduced on the point of a lancet would in a short time wither and die as if blasted by lightning. A solution of it in *alcohol at once deprived it of its poisonous qualities ;* but mixed with aqua ammonia, spirits turpentine, or with nitric or sulphuric acid, it acted with undiminished vigor.

The following experiment proves the power of fascination possessed by these reptiles. There were seven venomous serpents belonging to five different species, dwelling amicably in one den. A pair of king-snakes, which were fangless and consequently without venom, were introduced into this den. The next morning four of the venomous snakes were found destroyed by the king-snakes, one still within their coils and the two remaining ones seemed to be unable to make any effort at self-defence. A large rattlesnake could not be roused in any way, or give warning

even with his rattles, but remained stupid and indifferent to his fate.

After a great number of experiments, Dr. Gilman draws the following conclusions:

1st. That the venom of all serpents acts as a poison in a similar manner.

2nd. That the venom of some varieties is far more active than others.

3rd That a variety of the *Colluber*, known as the cotton mouth, is the most venomous snake in Arkansas.

4th. That this venom destroys all forms of organic life, whether *animal* or *vegetable*.

5th. That *alcohol*, if brought in contact with the venom, *acts* as an *antidote* to a certain extent.

6th. That serpents possess the power of fascination which may be compared with that of mesmerism.

7th. That the blood of animals poisoned by the venom of snakes bears a close resemblance to that of animals killed by lightning or hydrocyanic acid. It loses its power of coagulation and cannot be long kept from putrefaction.—*St. Louis Med. and Surg. Journal.*

A specific for the bite of the rattle-snake is said to exist in Bitron's mixture,—which consists of—

Potassii iodidi.....*gr.* v.
Hydrarg chloridi corros.....*gr.* ij.
Bromine.....℥. v.

Dose—10 drops in brandy.

This remedy has been well tested by Dr. William A. Hammond of the United States Army; and according to his testimony, its effects, even upon the most desperate cases, are most wonderful. Its efficacy has been further established by Louis DeVesey of California; and it doubtless deserves the confidence of the profession. Our physicians should give it a trial.—Editor.

POISONING BY OPIUM.

Dr. N. L. Folsom, of Portsmouth, reports in the *N. H. Journ. of Med.*, a case of recovery from poisoning by opium, in a child

six years old, by the application of scalding water to the feet. The patient was in a state of complete insensibility, with no pulse except very slight in the carotid artery, not the least sign of respiration, and paleness of death of the countenance. In a moment after the application of the hot water, by means of cotton cloth, the child drew up its feet, gasped, and then relapsed as before. The heat was then reapplied, with the same result, though each relapse seemed to be the last death gasp. For three hours the hot water was applied with the cloth, as often as the feet ceased to be drawn up. This treatment was followed by stimulating injections, beef tea, and an occasional application of hot water for the next twelve hours, to prevent sleep.

ANTIDOTES FOR STRYCHNIA.

The following is the treatment proposed by Bouchardat (a late authority), as we find it quoted by Dr. L. Ch. Boisliniere, in the *St. Louis Medical and Surgical Journal* :—

"1. Empty the stomach, as promptly as possible, with an emetic of *very salt* water, or tartar emetic; give the salt water in very *large* doses.

"2. Give, after repeated doses of *iodurettted water*, prepared thus: R.—Iodide of potassium, four scruples; Iodine, six grains; Water, one quart. The dose is half a tumbler full. It is necessary to give an *excess of this antidote;* for it has been found that the hydriodate of strychnia, although completely insoluble in acidulated water, was still poisonous.

"3. *To oppose the tetanic symptoms* caused by the absorption of the strychnine, we have not, unfortunately, sufficient clinical data for a sure treatment. There are, however, certain general principles upon which we can act. For instance, in strychnia poisonings, respiration must be, by all means, kept up either by inspirations of oxygen, or by alternate pressure and expansions of the thorax. (Galvanism.)

"As soon as the vomiting is under control, *opium* must be used as the most sure and most prompt agent to oppose tetanic rigidity. If the vomiting continues, *tincture of opium* might be used in injections. Repeat this remedy according to the effect produced."

A NEW METHOD OF DETECTING ARSENIC IN THE VISCERA AND IN ORGANIC SUBSTANCES.

By M. Lassaigne.

M. J. L. Lassaigne boils the substances suspected to contain arsenic in a mixture of sulphuric and nitric acids, slightly diluted with water ; the resulting liquid contains all the arsenic present, and has not the usual viscosity of the fluid matters to be tested. Solid matters may be treated in the following manner : Having been divided into small pieces, they are boiled in concentrated sulphuric acid, until incipient carbonization takes place ; then, when cool, concentrated nitric acid in excess is added to the carbonized mass, and the mixture is boiled until the nitric acid is entirely decomposed. The residue is diluted with from five to six times its volume of distilled water ; it is then filtered, and Marsh's test applied.

A weight of sulphuric and nitric acids, equal to the weight of the substances requiring analysis, is considered by M. Lassaigne to be the suitable proportion. This method M. Lassaigne has found to be completely successful in separating arsenic from even the smallest quantities of organic matter.—*Med. Gaz. from Journal de Chimie Medicale.*

SLOW POISONING BY COPPER.

Dr. Corrigan reports (*Dub. Hospital Gaz.*) several cases of poisoning by copper, which are remarkable for the extreme slowness of progress resulting from the gradual introduction of the poison. In many instances it was the result of handling old or dirty copper, on which the carbonate had been formed. It was the carbonate from which the poisoning proceeded, and in this there is an analogy with the salts of lead. He notices a peculiar feature in these cases, viz., an edging of rich purple on the margin of the gums, of the incisor, canine, and biscupid teeth of both jaws. This purple color corresponds, in situation, precisely with the coloring produced by lead, but the tint of color is so different as to decide at once whether it has proceeded from copper or from lead, for, while the color produced by lead is of a pure blue, that from copper is a well-marked purple, and even sometimes, a reddish purple.

PHYSIOLOGY.

IMPORTANCE OF THE SUPRA-RENAL CAPSULES.

Dr. E. Brown Séquard concludes from the facts which have been observed by Physiologists who have dissented from his views on the functions of these bodies, as well as from his own more recent investigations.

(1) That the offices performed by the supra-renal capsules are essential to the life of animals not albinos.

(2) That the immediate and complete suspension of these offices or functions, causes death very rapidly.

(3) That the gradual suppression of their functions cause death after a few months at farthest, and among certain species of animals, in a few days.

(4) That the simultaneous extirpation of these bodies produces a fatal result, as a general thing, much quicker than the removal of the two kidneys.

(5) That if certain animals (albinoes,) seem capable of living after the removal of these capsules, this fact supports the opinion, formerly expressed, that one of the principal causes of the death of animals not albinoes, is the accumulation of pigment.—*Journal de la Physiologie Janvier*, 1858.

THE RESISTANCE OF CLOTHES TO HEAT AND COLD.

By Dr. Coulièr, Professeur Agrégé à l Ecole Impérial de Médecine et de Pharmacie.

I think I may draw the following conclusions from my observations.

(1) The color of the clothes is without any sensible influence on the loss of caloric.

(2) All the tissues are capable of absorbing, in a latent state, a definite amount of hygrometric water ; this quantity which is considerable for wool, is small for hemp, and still smaller for cotton.

(3) This absorption takes place without the immediate loss of caloric from the human body.

(4) The color of the tissue has a great influence on the absorption of solar heat ; and it is sufficient, whatever the

nature of the clothes, to modify their exterior surface, so as to take advantage of the fact that a white surface absorbs less when exposed to the rays of the sun.—*Journal de la Physiologie Janvier.* 1858.

THERAPEUTICAL RECORD.

Anasarca.—Dr. Gintree reports a case of anasarca which was relieved by sulphate of magnesia, after all other remedies had failed.

Anatomical Wounds.—M. Nonat recommends the washing of such wounds with a solution of chlorine.

Aneurism.—Dr. Fergusson (*London Lancet*), mentions a case of subclavian aneurism, which was relieved by manipulation. By this term he means a forcible squeezing of the sac, so that the fibrine within is displaced and made to plug up the distal end of the tumor. This plan has been attempted in this country with success.

Acute Rheumatism.—Dr. Campbell (*Dublin Hospital Gazette*), extolls the efficacy of large doses of the iodide of potash in this affection. He gives 10 grains every four hours. In the chronic form of this disease, Dr. Fuller, of St. George's Hospital, advises the internal use of the sesquioxide of iron, and the external application of sulphur.

Incontinence of Urine.—Belladonna in small and repeated doses, is highly recommended in Schmidt's Johrbucher, for that irritable condition of the bladder upon which incontinence depends.

Vomiting.—Fresh powdered columbo has, in the hands of Dr. M. Lami, proved a valuable remedy for obstinate vomiting.

Hemorrhoidal Hemorrhage.—M. Trousseau reports the favorable result derived from the use of injections of the sulphate of copper in hemorrhages from the rectum, the consequence of piles.

Scarlatina.—Drs. Babington and Hughes, after much experience, are convinced that when cerebral symptoms present themselves during the convalescence of children from scarlet fever there is no remedy more efficacious than colchicum.

Uterine Hemorrhages.—M. Dupierris, of Havana, in an article on the treatment of uterine hemorrhage, recommends the use of tincture of iodine, applied to the bleeding surface, as an excellent means of arresting the flow.

Cholera.—Dr. Gudas, of Athens, employs the tannate of quinia in cholera, with much success. He combines it with opium, iron, and ipecacuanha, and gives six grains of the quinine to half a grain of the other medicines, every half hour or hour, according to the symptoms.

Neuralgia.—Déclat's treatment of neuralgia with the valerianate of ammonia, is very highly spoken of by those who have given it a trial.

Intermittent Fevers.—Dr. Coons, of Dayton, Ohio, has used nitric acid in intermittents with great success. He administers eight or ten drops every five hours, diluted with water, both in the paroxysm and the interval.

Erysipelas.—M. Anciaux speaks favorably of the following local application in erysipelas. Alum reduced to an impalpable powder, 30 parts; white precipitate, 1 part. Rub up well together, place the powder in a bottle, and add from 90 to 100 parts of glycerine. Shake well before applying.

Purulent Infection.—M. Turchetti reccommends aconite and quinine in this affection.

Epilepsy.—Dr. Cornell (*Charleston Medical Journal,*) gives numerous cases of this disease, which were successfully treated by digitalis. The following is his formula: ℥i leaves pulverized, ℥i powdered cinnamon, and half a pint of boiling water. After this has infused for eight hours, it is strained, and a table-spoonful given three times daily. In a week the dose is increased to two table-spoonfuls *ter in die.*

Typhoid Fever.—The Gelsemium or yellow jessamin is said by Dr. Miller to be a good remedy in typhoid fever. According to him,—sixty drops of the tincture, with ten grains of quinine, will cut short the disease with more certainty than any other medicine.

Dysmenorrhœa.—Cotton root—(Gossypium Hubaceum,) is re-

ported to act admirably on patients suffering with Dysmenorrhœa. The following formular will answer :

℞ *Cotton root* . . . . . *four ounces.*
Water . . . . . *two pounds.*

Boil down to one pint. S.—A wine-glassful every hour.

Suppuration.—Chamomile (Anthemis Nobilis) is declared by M. Ozaman to exercise a most positive control over the process of suppuration. For this purpose, he administers it in doses of ℥i of the flowers to two pints of water,—the infusion to be taken in the course of the day.

Suppression of Urine.—Dr. M. B. Beers, in the *Chicago Medical Journal*, recommends a decoction of the apis mellifica, or honey bee, as a diuretic of great efficacy in suppression of urine. He takes from eight to twelve honey bees, pours on them a pint of boiling water, and gives one table-spoonful of the decoction every five minutes until the patient is relieved.

Phthisis.—Drs. Parola and Rossi, of Italy, are using the resinous extract of ergot as a remedy for consumption.

Croup—Dr. John D. Shelton, (in the *American Journal of the Medical Sciences,*) reports several cases of croup as being cured by the external application of an ointment composed of extract belladonnae ℥ii, and ung. hydrarg mite ℥vi—well rubbed together. This must be used on the sound skin over the trachea every hour.

Dysentery.—Dr. G. E. Elum states (*New Orleans Medical News and Hospital Gazette*) that he has relieved persons suffering with dysentery of an epidemic character, by exhibiting creosote in gum arabic mucilage, every two hours. Glysters of alum are recommended by Dr. Hamon.

Facial and Dental Neuralgia can be promptly relieved, by turning into the ear from four to ten drops of a fluid prepared thus—

℞ Take of extract of opium
" of belladonna,
" of stramonium,—each one part.
Distilled cherry water,—twelve parts.

Dissolve and filter. Permit the liquid to remain for a few moments in the ear.

Flat Nipples.—By coating the vicinity of the nipple, in a circle half an inch wide, with collodion; the compression effected during the contraction of this adhesive material, will cause the nipple to protrude sufficiently to permit of convenient nursing. There should be a space of half an inch around the nipple uncovered by the collodion.

EDITORIALS AND MISCELLANEOUS ARTICLES.

With this number, the first volume of the North Carolina Medical Journal makes its début before the profession; and as its Editor, we take this occasion to present our cordial thanks to those who have already proved themselves friends of the enterprise, and to offer our respectful salutations to the public generally. After many months of anxious solicitude and earnest labor, we are at length able to present our bantling to the world; not fully developed in all of its proportions, nor arrayed in such habiliments as paternal regard would suggest, but with an earnest hope on our part, that it has in it the elements of future strength and usefulness, and that a green and honorable old age awaits it.

This Journal has been undertaken for the purpose of furnishing to the physicians of this state, a vehicle through which their observations may be published to the world; as a means for propogating a spirit of vigorous research and analysis throughout the ranks of the profession; as a nucleus for the formation of a home medical literature; and as a bond of union and fellowship between our medical brethren from the mountains to the sea. Partaking in a great measure of the quiet and unobtrusive character of their state, the physicians of North Carolina, have heretofore contented themselves with a faithful and unpretending

discharge of their duties to their patients, without remembering that they are under obligations likewise to the profession, which can only be discharged by keeping up with the progress of medicine in all of its departments, by faithfully recording their observations, by communicating the results of their experience to the public ; and by that interchange of opinions and sentiments which conduces alike to the advancement of medical science and the development of a healthy "*esprit du corps*" among the fraternity. For this reason, they have neither received a just appreciation from the public, nor taken such a position in the great medical movement of the day, as their acquirements and abilities have demanded at their own hands. While others have been pressing forward in the race for honors and emoluments, they have remained quiet spectators of the scene, or have assisted in the distribution of rewards which should have been their own. While others have rejoiced in the homage of their peers, or have won the applause and the gratitude of the world—because of the discovery of some great remedy, the performance of a daring operation, or the elucidation of a new and commanding truth, we have devoted ourselves to an unostentatious pursuit of the more practical and legitimate duties of our calling, and have chosen to combat disease at the bed side of suffering humanity, and to command the respectful regard of our immediate patients, rather than indulge in those polemical speculations which please the fancy of the multitude, or publish our exploits to the world, with the hope of eliciting its admiration and of securing its distinctions. In a word, we have preferred the calm, modest, and secluded life of the country physician, to the storms, the excitement, the rivalry, and the brilliant rewards of a more ambitious career. This indisposition to contend for the prizes of the profession ; this shrinking from the observation of the public ; this withdrawal into the restricted sphere of private duty, though originating in a right principle,

and prompted by an apprehension of falling into the opposite extreme of vanity and presumption, has produced such a condition of separation and isolation among the followers of our calling, and so fettered the medical mind of the state—locking up the vast store of its resources, the rich fund of its experience and the treasures of its professional skill, as to impress upon every reflecting man the necessity for adopting some measure for the introduction of an improved and different order of things in the state.

The establishment of a State Society, affording an annual opportunity for the exchange of opinion and sentiment, although productive of inestimable advantage to the profession, has failed to meet all the indications which presented themselves, and something more is demanded by the necessities of the case. A Journal is evidently the great desideratum under existing circumstances,—since it will regularly reflect the medical mind of the State,—indicate the condition of the healing art in our midst,—furnish an arena for the display of talent and information, and supply a medium of communication between ourselves, and with the profession at large. For this reason, and with these objects in view, we have entered upon our present enterprise, determined to accomplish all that energy and industry can effect, and stimulated by an ardent hope that a protracted existence and an exalted destiny awaits the Medical Journal of North Carolina. Published under the auspices of the State Society, and sustained for the present by liberal hearts and able heads, it will labor at all times to establish the claims of Medicine, particularly in this State, to the confidence of the public, and the respect of the profession elsewhere;—it will zealously advocate every system of reform, both in and out of our own ranks, whereby the welfare of the people may be secured ; and it will wage an uncompromising war upon vice in all its forms,—upon quackery in every guise,

and upon arrogance and ignorance wherever they are found, or under whatever prerogative they may cloak themselves. Whilst respectful to authority, it will test every thing by its own intrinsic worth: whilst critical and scrutinizing, it will investigate calmly, thoughtfully, and without prejudice or bias: and whilst courteous and mindful of the rights of others, it will speak the truth without fear or favor, and with a proper regard for its own dignity and responsibility, It will be its prominent object too, to assist in promoting the advancement of learning, and the furtherance of the cause of humanity, by gleaning from the fields of home and foreign periodical literature all that is valuable and worthy of record, by supplying a perspicuous and comprehensive statement of the progress of the Science and the Art of Medicine, and by advocating every system of ethical, educational, and moral reform, by which our noble profession may be rendered more honorable in the estimation of men, and more useful to the race. It will be its province to chronicle alike the researches of the Physiologist, the labors of the Practitioner, and the triumphs of the Surgeon. It will be its pride to do battle for the rights and interests of Medicine everywhere; to assail those who are either secretly or openly its enemies; to stand up for the profession in Carolina at all hazards; to prove that in the secluded walks of the country physician, triumphs are sometimes won, which in a different arena would secure the noblest distinction, and the most princely recompense; and to show that Learning and Science claim no exclusive citizenship, but find a home amidst the solitudes of the most secluded situation, and the confines of the humblest sphere of duty, as well as where wealth has dedicated to them the most magnificent temples, and a multitude of worshippers offer perpetual homage to their honor. With a Journal established upon such principles as these, we throw ourselves upon the patriotsim and liberality of the practitioners of this State especially, and confidently anticipate

such a support for our enterprise as will preclude the possibility of its failure. Shall our confidence in them be misplaced? Have we counted too largely upon their State pride and their regard for the profession? Will they refuse to rally to the support of an undertaking in which each one of them has a personal and a most important interest? The future can only answer these questions; but we must say, from the spirit already displayed in this matter, from the interest manifested in the Journal in advance of its publication, from the known liberality and intelligence of our medical men as a class, and from the regard manifested by our people for every thing Carolinian in its origin, objects, and affections, we can but express the conviction, that unlike the periodicals of other States, it is destined to withstand every opposing blast, to plant itself securely and permanently in the confidence of the public, and to bear abundant fruits through many coming years.

Surely, North Carolina has incurred the reproach of slothfulness long enough, and it is now time to show to the world, that the sarcasms of her enemies have lost their point, and that she has awakened from her protracted slumber with fresh energy, redoubled strength, and broader, nobler, and more comprehensive aspirations. To her sons, then, we appeal, entreating them by their regard for her honor, by their interest in her welfare, and by the memory of her past glory, to foster and sustain an undertaking, in the success of which the honor of the state is involved, and whose failure must cast a blot upon her most honorable name. For though the miscarriage of this scheme be, apparently, a small thing in itself, yet when it is remembered that this is the first enterprise of the kind ever attempted in Carolina, that the Journal is issued under the auspices of the Medical Society of the State, that it is the organ of hundreds of her best educated citizens, that it is designed to improve her physicians, and indirectly benefit every

class of her population. and that this venture has been made to meet a want which is co-extensive with her boundaries, and with an exclusive reliance upon her for support and patronage, it becomes a matter of no small moment that success should crown our labors, and that in the history of this undertaking "there should be no such word as fail." But it is not only to your state pride, my brethren, that we appeal; we call upon you as *physicians* to aid us in this emergency. Will you not devote your talents and your means, to a work designed to promote the highest interests of that calling to which you have devoted your lives? Will you permit an enterprise to miscarry whose object is to advance and elevate the profession of your choice? Will you refuse your hearty co-operation in a scheme devised for your own improvement, the extension of the spheres of your usefulness and the advantage of society at large? Will you permit a Journal to languish which has been established for the purpose of developing a community of interest and sentiment among the physicians of the state, fostering that honest pride which is the main spring of enthusiasm and the secret of all success, presenting a field for the exercise and the gratification of honorable ambition, tearing the mask from quackery and pretension wherever they exist, and vindicating the rights and the dignity of the profession at all hazards and to the last extremity? Your means are ample enough to permit this small pecuniary sacrifice in so worthy a cause. You have sufficient leisure to reflect upon your cases, to examine them in accordance with scientific laws and the rules of logical analysis, to read and digest all that relates to them carefully and thoroughly, and to publish the results of your investigations. You have every variety of disease to contend with, from the intermittents of the sea board, to the typhoids of the mountains, whilst surgery, obstetrics and materia medica in all their branches, are continually demanding your attention, so that ample materials for reports of

the most interesting character are continually within your reach. And you *must* have the intellectual ability and training requisite for the task, for the annual proceedings of our State Society are distinguished by the most decided evidences of professional skill and mental superiority, and Carolina was never yet found wanting when talent or genius has been invoked, whatever the occasion which sounded the call. In view of all these considerations, we have determined to rely upon the physicians of the state, and have issued our first number, not as an experiment, but with a determination to complete the volume, and to go on with the work. Come forward then, gentlemen, and aid us in sustaining, invigorating and adorning the MEDICAL JOURNAL OF NORTH CAROLINA. Interest yourselves in its welfare, contribute to its pages freely and frequently, and so identify your feelings and wishes with the enterprise, that its success may be regarded as your own triumph, and its failure esteemed a personal calamity. With these remarks we place the JOURNAL in your hands, hoping that your judgment of its merits may be tempered with partiality, and asking as a personal favor that the inexperience as well as the zeal of its Editor may be born in mind by a liberal public.

THE NATIONAL MEDICAL ASSOCIATION.

It has long been objected to this Association, that its meetings are productive of no practical advantage to the profession, and that beyond the feasting and festivity in which the members annually participate, the whole movement has proved a failure, or something worse. Without answering these objections, by appealing to the many valuable essays and reports which have been regularly presented to the Association, or referring to the benefits which necessarily result from the interchange of opinions, and the development of friendly and fraternal feelings among the

physicians of the whole country, we can but express the conviction, that if the Society had done nothing more than what was accomplished recently in Washington, in arraigning, censuring, and humiliating those who had violated the ethics of the profession, it would deserve the respect and support of every medical man who loves his calling, and convert its enemies into ardent and admiring friends. A man occupying the honorable position of Vice-President of the National Medical Association of the United States, in utter disregard of the code of laws promulgated by that body, unmindful of the rights and wishes of a most respectable corps of his brethren, forgetful of his own dignity and duty as a practitioner of medicine, and reckless of the interests and the honor of that profession under whose banner he had enlisted for noble and elevating purposes alone, recommends a notorious quack—a vender of panaceas and nostrums, a medical huckster who had disgraced himself by prostituting his profession for the sake of gain—to a situation of trust and emolument, in connexion with one of the first hospitals in the country. Having defied the local societies of Philadelphia and New York, and scorned the appeals both of the physicians connected with the hospital, and those elsewhere who felt themselves insulted by this outrage, he boldly came forward and took his seat as one of the officers of the Association.

There was a cloud gathering, however, that he little dreamed of, and before he was aware of danger, a storm of indignation was sweeping around him, and he was forced to seek safety in such an apology as he deemed sufficient for the occasion. But it was not until he had been compelled to strengthen it with regrets, and roof it over with promises of future good conduct, that he was able to find even in that, a refuge from the displeasure of those whose trust had been betrayed, and who, as the representatives of the profession of the country, were determined to punish him according to his deserts. Those who had sustained

him were similarly arraigned, and only succeeded in averting the anger of the Association, by making the most unconditional retractions, and expressing the deepest contrition for their misconduct. Thus has a decision been rendered by the highest medical tribunal in the land, which will do as much to strengthen the profession, and to elevate the character of its members both at home and abroad, as its warmest friend could suggest or desire. Thus has a position been taken by the National Medical Association, at once worthy of itself, acceptable to a great majority of the physicians of America, and such as must gain for it the approbation and respect of every honorable man. Thus has a lesson been taught to quackery and arrogance which they will remember to their humiliation and disgrace whilst a single votary shall defile himself with their delusions.

All praise then, to the true hearted men, who have boldly stood up for the honor of medicine, and who, without regard for prerogative or position, have nobly discharged their duty to themselves, and fearlessly vindicated the rights of the physicians of the country. The practical answer thus given to those who have opposed this great national movement, and refused to take part either in its deliberations or in advocating the reforms it has proposed, should, and must do more towards strengthening and perpetuating the Association, extending the sphere of its usefulness, increasing its influence in this country and elsewhere, and assisting in the accomplishment of its high destiny, than could be effected by the ordinary legislation of a century, or the publication of a thousand reports replete with all the treasures which science conceals in her mysterious coffers.

DR. TULL'S ADDRESS.

We present in this number, the admirable address of Dr. Tull, and beg leave to call the especial attention of our readers

to it. It is not only beautifully written, but its substance matter is of much more than ordinary interest to the profession. Its author has evidently devoted much time to the subjects of which it treats, and in reward for his industry, has presented a production to the public which will gain for him an enviable reputation as an accomplished scholar, an accurate thinker, and an able and finished writer. It is a matter of very deep regret to us that we have not been able to give it a more conspicious position in the Journal, but as it did not reach us until a very late date, we were compelled to place it where we could. Those wishing extra copies can have them by applying to the editor.

TO SUBSCRIBERS.

A copy of this Journal is sent to your address, with a distinct understanding that three dollars shall be forwarded to the editor without delay. As the agent of others, we feel compelled to adopt the cash system, and shall not attempt to force our circulation by sending a second number to those who do not pay for the first. Specimen numbers will be sent to many of our friends who have not placed their names on our subscription list, with the hope that they may be induced to do so at once. We hope that they will give us a fair trial at least for the year, as we shall use every exertion to give satisfaction. All communications and business letters must be addressed to the EDITOR MEDICAL JOURNAL, Edenton, N. C.

EXCHANGES.

As yet our exchange list is a most incomplete one, and for that reason we have been much troubled in making selections for this number, which will account for the meagreness manifested in some of the departments of the Journal. We shall be most

happy to exchange with all the respectable journals of the country, and solicit that favor at the hands of the editorial fraternity generally. We shall take pleasure in giving an early and candid notice of all books that may be forwarded to us.

TO CORRESPONDENTS.

We have taken the liberty of dividing some of the papers in our hands, so that they may be published in separate issues of the Journal. The great length of some, and the want of connexion in the subjects treated of in others, have induced us to make these alterations,—which we trust will be agreeable to the parties concerned, as we know their articles will thus be rendered more acceptable to the public. We trust our friends will remember that communications should only be written upon one side of the sheet,—that pains must be taken to form their letters plainly, and that perspicuity constitutes the great desideratum in all articles upon scientific subjects. By attending to these things, they will greatly lighten our editorial burden, and do themselves no little service.

OUR FIRST ISSUE.

Some apology is due to the public for the manner in which this number has been prepared, and its typography executed. The preparation of matter for a medical journal is no easy task at best, and when, to the ordinary difficulties of such an undertaking, are added the inconveniences resulting from the want of an exchange list, and the isolation of a situation where books of the most recent date cannot be immediately obtained, some excuse must present itself to the mind of our readers for the deficiencies of this number. Again, the Journal has been printed by those who are comparatively unfamiliar with such an under-

taking, and, though they are practical printers, some experience is necessary to render their work as neat and complete as we would desire. We trust our readers will remember that many a first attempt has proved more of an abortion, and that an insignificant beginning is no evidence that other than a glorious destiny is reserved in the future, as the reward of industry and perseverance. The broadest river has its source in some unpretending spring; the noblest monarch of the forest was once a fragile and unpromising twig; the mightiest genius that ever swayed the destiny of nations, came from his mother's womb a helpless and undeveloped infant; and so, to descend from our rhetorical stilts, great things may yet come out of the MEDICAL JOURNAL, even though it presents so plain and unpromising an appearance in the incipiency of its career. "*Mais, nous verrons.*"

MEETING OF THE STATE MEDICAL SOCIETY.

This body held its late annual meeting in Newberne, which, by the way, is one of the most beautiful towns in this country, and closed its deliberation after an interesting session of more than ten days. A larger number of physicians were in attendance than on any previous occasion; and the reports presented displayed more than the usual amount of research and ability. The enthusiasm manifested in behalf of this JOURNAL was most grateful to our heart, as it afforded the pleasing assurance that the physicians of the State are fully alive to the importance of the work, and are resolved upon its immediate and permanent establishment. Forward your communications, gentlemen, and send in the names of subscribers, as it is such practical and material aid that we most require in the outset of our venture. We were most hospitably entertained by the physicians of Newberne; and many a long year must elapse before the pleasures connected with the

meeting of 1858 will be forgotten by those who participated in them.

No State Association in this country has proved so decided a success, and all praise is due to those who have fostered and sustained it throughout the whole period of its existence, even at the sacrifice of their personal and professional interests.

NORTH CAROLINA

MEDICAL JOURNAL.

Vol. I. OCTOBER, 1858. No. 2.

ORIGINAL COMMUNICATIONS AND TRANSLATIONS

DISEASES OF PERQUIMANS' COUNTY.

Reported by Caleb Winslow, M. D., Hartford, N. C.

In the county of Perquimans, the past year has presented much more than the average amount of sickness. This has been very nearly equally distributed over the several months of the year, thus presenting quite a contrast with our usual experience, in which our so called sickly season, including August, September and October, afford nearly or quite as many cases of disease as all the other months combined. This equality of distribution resulted from a very great deficiency in the number of cases of intermittent and remittent fevers, and a great excess of inflammatory diseases.

The type of the season has been eminently adynamic and continued, and our diseases have been characterized by obscurity, obstinacy and severity, difficulty of diagnosis, inefficiency of treatment and fatality of result. The practice of medicine in my county for the past year has heavily tasked mind and body, and has yielded much less than usual the solace of success.

Continued fever has prevailed to a great extent during the past year, taking the place to a very considerable degree, of the bilious remittent and intermittent fevers, which have been endemic heretofore. This fever was unknown to the physicians of this county until within the last three or four years, but

within that time it has rapidly increased, until now it is in excess over all other fevers. It prevails most extensively in the Summer and Fall, but it is not confined to those seasons, being met with throughout the year. This fever, commonly known in this section as typhoid fever, is very distinct from the eruptive typhoid or the typhus fever of medical writers, and has a much nearer relation to our autumnal fevers. It is often ushered in with chill and fever, to all appearances identical with ordinary intermittent fever; but after one or two returns of the chill a fever sets in, which subsides no more until the disease is cured or the form of fever is changed.

At other times the fever comes on very insidiously, with a feeling of weariness about the loins and an indisposition for exertion, a gradually increasing loss of appetite and slight feverishness, which condition may continue with but little change for several days, or even weeks. Sooner or later all these symptoms are aggravated, there comes on a feeling of extreme debility, the skin becomes dry and exceedingly pungent to the touch, the pulse rises to 90 or 100 and occasionally higher, is soft and compressible, a slight hacking cough now comes on, without expectoration. The nervous system becomes very much affected giving rise to subsultus, to constant talking when asleep and often delirium when awake. Very frequently the throat becomes sore, the bowels irritable and the tongue, which at first was clean or but slightly coated by a milky covering, now takes on a dense white fur, which is increased rather than diminished by purgatives. In bad cases in which the liver is implicated, a yellow or brown coating appears on the tongue, which often becomes dry and cracked. This train of symptoms, with little variation, may last for two or three weeks—even eight weeks, and the fever finally passes off as slowly as it came on, or in its termination, like its commencement, it may assume the intermittent or remittent form and be curable by the remedies for those fevers.

I am not mistaken as to the convertibility of the remittent into the continued form of fever and *vice versa*. I have observed the change in very many cases, and proved it by the test of quinine, which I regard as the *experimentum crucis*. I believe the majority of cases of bilious fever last Fall, could be made to

assume the continued form by the administration of a single drastic carthartic. Under the action of ordinary purgatives the tongue assumes a heavy white coating, and the pulse though feeble, began to assume that indomitable character, which though it is almost pathognomonic to the finger, yet cannot be described.

Uncomplicated continued fever is rarely fatal; but it is often so protracted and is liable to such dangerous complications that it is one of our most formidable diseases—dreaded alike by patient and physician.

Pneumonia, bronchitis, tonsillitis and dysentery or diarrhœa are very frequent complications.

In the treatment of this fever purgatives are not well borne. They irritate the alimentary canal, and debilitate, without reducing the fever. A gentle mercurial purgative at the commencement, and if the bowels require moving, an aperient at the interval of every two or three days, should be the limit of our purgation. In those cases in which the tongue presents the yellow coating of bilious fever, a few grains of calomel in broken doses, followed by oil and turpentine, are of much benefit; but I have never seen the system put under the specific influence of mercury in this fever without serious aggravation of the disease. Nor can I speak more favorably of the specific influence of quinine. It utterly fails to arrest the fever though given in large and continued doses; as a tonic and stimulant in doses of a few grains daily, it is a valuable remedy.

In the early stages of the fever while it is yet remittent, and in those cases which assume that form after having been continued, quinine arrests the fever promptly.

The most valuable medicine in the treatment of continued fever is morphine, given in combination with a diaphoretic it relaxes the skin and promotes free perspiration, quiets the irritability of the alimentary canal, reduces delirium and nervous excitement generally, and by these means curtails the duration of the fever. I prefer the citrate of potash to any other diaphoretic.

When the tongue becomes red, or dry and fissured, and the mouth hot, indicating a high excitement and congestion of the alimentary canal, the spirits of turpentine acts very favorably.

For the diarrhœa, which is a frequent attendant on this fever,

and which is often very profuse and obstinate, the nitrate of silver combined with opium, is the most valuable of our remedial agents. In numerous instances in which I had tried in vain all of our most powerful astringents, and where opium, though pushed almost to narcotism, had failed of relief, this salt given in one-third or one-half grain doses three or four times a day, has controlled the discharges and enabled me to conduct to a favorable issue cases otherwise hopeless.

Blisters, applied in the latter stages of the disease, when the powers of the system seem about to give way, acting as stimulants and revulsives, often have a very happy effect. They should be healed up immediately and if necessary reapplied, but not allowed to remain open and add their irritation and depletion to those already overwhelming the system.

In the use of veratum viride, so much extolled recently as a remedy in all fevers, I have not had sufficient experience to enable me to speak with judgment. It failed to meet my expectations in my first trials of it, and I laid it by and have but recently taken it up again.

In the few cases in which I have recently tried it, in continued fever, it has acted well, and seemed to have a decided effect in limiting its duration, and from my experience with it in other diseases, I am led to hope much from it in this. I have always used it in conjunction with other remedies with whose powers I was better acquainted.

In closing this notice of continued fever as it prevails in my county, I cannot too strongly urge the necessity of early and continued stimulation and nutrition. The regular and judicious administration of nourishment and of alcoholic stimulation I consider of more importance than all the other remedies combined. New milk and old apple brandy made into toddy, answers well in most instances, and should be given, in appropriate doses, at intervals of a few hours night and day.

I have been thus particular in noticing continued fever, because it is emphatically *the* fever with which our physicians have been wrestling during the Summer and Winter for the last twelve months. With the exception of comparatively a few cases of intermittent and remittent fevers, we have met with this fever whenever

we have met with febrile disease at all. Every inflammation and every exanthema has been engrafted upon this fever as its parent stock; and it is worthy of remark, that in many instances after we have controlled the inflammation by appropriate remedies, the fever which it had lighted up continues to burn until it consumes the power of life, or, until aided by our remedies it consumes itself.

Pneumonia has prevailed extensively and continuously since the last meeting of this Society; appearing generally as a complication of other disease, but frequently as the original affection. During the Summer and Fall it attacked those debilitated by continued fever. In October it accompanied the epidemic influenza. While during the Winter and Spring it complicated measles and erysipelas. Besides the character it had in common with the fever just described. pneumonia has presented some peculiarities this season. The amount of cough, compared with the extent of inflammation, has been much less than usual, and in most cases the secretion and expectoration has been small in quantity and but slightly discolored; while in a few cases it has been exceedingly florid and abundant, being little less then a hemorrhage.

Pain has been a constant attendant and much more difficult to subdue than I have ever before met with. Repeated cupping and blistering frequently fail to relieve it, indeed I have almost abandoned cups, with this view, as useless.

In the treatment of pneumonia constant reference must be had to the character of the associated fever, which has its indications of remedies distinct and separate from those which are indicated by the inflammation accompanying it. Having specified the usual course of treatment of continued fever, I have nothing to add in the way of remedy for that fever when excited by pneumonia. Early and continued stimulation and nutrition are objects of the very first importance.

In combatting the inflammation, resort is to be had to cupping and blistering, especially the latter, to be repeated as often as the blistered surface peels. I have seen no case, during the past twelve months, in which I thought general depletion admissible.

The careful induction of the specific influence of mercury I think exceedingly desirous; stopping the medicine upon the very

first appearance of its constitutional effects. Carried further than this, the irritation of ptyalism very much aggravates and prolongs the fever, and may determine to a fatal issue.

I confess there are cases in which the inflammation refuses to yield to mercury, but these cases refuse alike to yield to every other remedy known to me. In the great majority of cases our expectations are gratified by the prompt arrest of all symptoms of inflammation as soon as the gums are touched; but we have left to us a fever to be prolonged or arrested, according to its own laws and its own remedies, and I have too often had to lament a fatal issue, days or weeks after all symptoms of inflammation, rational or physical, had subsided.

Not unfrequently we meet with cases in which we are restrained from the internal exhibition of mercury, by the extreme irritability of the bowels. Resort must be had in these cases to its external use, while internally we address our remedies to the subjugation of this irritability.

In past years quinine has been a very valuable agent in the treatment of pneumonia, in which I used it as constantly, and with almost as much confidence, as in the treatment of remittent fever.

But quinine has no control over the inflammation as it now presents itself, and very generally increases the fever. Ipecac, which I use in most cases, in combination with the mercurial and with morphia, has much less effect in promoting expectoration than I have been accustomed to realize from its use. In many cases the nausea induced, by preventing the reception of nourishment, causes more ill effects than good.

From my limited experience in the use of veratrum viride in this disease, as in simple continued fever, I am very favorably impressed with its effects, and believe it to be a very useful adjuvant to other remedies. I have experienced much difficulty, however, in its administration to patients whom I am enabled to see but once a day. A sufficient acquaintance with the pulse to judge correctly of its effects, and to regulate its doses accordingly, is not always met with in the family of the sick, and the particularity with which we give directions for its use often excites suspicion, and it is suspended upon the first turn, real or imaginary, in the disease.

Since the first of January last, there has prevailed extensively in this county an epidemic consisting of various inflammatory diseases grouped together more or less constantly. Of these, the most constant has been erysipelas of the parts about the eye; and although there has not been in every instance an external development of this disease, yet I believe it to be present in every case, and to constitute the essence of the epidemic.

The disease comes on with chill, which is often protracted several hours, with rapid alternations of the sensation of heat and cold. This gives place to fever, with a rapid and very feeble pulse; so feeble in many instances as to excite alarm for the immediate safety of the patient. Pain of the most violent character now affects the head; being located about the frontal sinuses. Sooner or later, an erysipelatous inflammation creeps from the orbit of the eye, and generally extends over the superciliary arches—less frequently it spreads downwards over the antrum, and that cavity becomes a new seat of pain. The area of inflammation is generally limited to the parts described, and the tumefaction is often scarcely apparent. In no instance have I seen it invade the scalp, and I recall no case in which the eyes have been closed. Occasionally the swelling has been much more extensive, creeping down the cheek to the neck, and around to the ear, and the throat has become so much tumefied as to arrest deglutition and impede respiration. In some cases the inflammation first appears in the meatus. I have rarely seen the disease affect both eyes, and often the redness and tumefaction is confined to the upper lid, and appears and disappears entirely several times during the day. In the first case I saw of this disease the only external development was redness and slight swelling of the great toe of the right foot, accompanied by severe pain, and a very rapid feeble pulse. My patient was sitting up when I saw him, and treated very lightly the apprehension I expressed of his being very ill. In twenty hours from that time he suddenly became comatose, and died before morning. Very generally, though not invariably, some affection of the pulmonary organs accompanies this disease, giving rise to cough and pain of various degrees of intensity. The sputa and the physical signs indicate pneumonia, or bronchitis, or pleurisy, or all combined.

When pleurisy exists, the pain in the side and shoulders is exceedingly violent and persistent.

These inflammatory affections of the lungs are sometimes secondary—coming on after an amendment or relief of the disease of the head—but very frequently they co-exist from the first accession of fever, and almost as frequently there co-exists some disease of the biliary apparatus, producing pain in the hypochondrium, and a deep tinge of yellow in the skin and eyes, in some instances equaling that of jaundice.

In a few instances the brain has become the secondary seat of inflammation, by the gradual extension of the disease from the frontal sinuses. A melancholy example occurred in a family, in which two sisters, aged ten and twelve, died within a few days of each other in coma and convulsions.

The first had some headache and slight redness and swelling about the eye, but no suspicion of illness was entertained by her parents. Suddenly she began to talk incoherently, and before a physician could reach her she was comatose, and died before morning.

The other sister was on that day attacked with nausea and vomiting of bilious matter, which continued through the day, but was relieved at night. Next day she had some fever, and complained on being asked, of a little pain in the head. She persisted in saying there was but little the matter, and was with difficulty kept in bed. At night she became delirious, and coma set in, which continued two days, when life was terminated in convulsions. This little girl presented no external marks of inflammation, and yet we cannot doubt that her disease was like her sister's, erysipelas. And it is upon evidence furnished by such cases as these, that I pronounce many cases erysipelas where I have no external demonstration of it.

Erysipelas is prevailing in a family, and one after another are being taken down with it, accompanied by some or all of the complications before enumerated. Now it often happens that a case presents itself having all the other symptoms, but lacking the external redness and tumifaction. We treat it as we treat the other cases, not doubting but that we have to do with the same disease. These cases in which the external manifestation is

absent, sometimes constitute a large proportion of those which appear in a family; and I must say that I believe I have often met with cases of erysipelatous pneumonia or pleurisy in families which have presented no case of erysipelas of the surface. Still more frequently have I met with this latent erysipelas affecting the frontal sinuses. Although I cannot diagnose with absolute certainty the existence of this peculiar character in the inflammation, yet when I find a case recently attacked of pneumonia or pleurisy, with a pulse exceeding suppressed and feeble, for which the extent of pulmonary obstruction is not sufficient to account, the respiration being easy and the intellect clear, I suspect very strongly that I have a case of erysipelas; and if after cupping and blistering and the free use of anodynes the pain fails to yield, and there either then exists or has recently existed pain in the frontal sinuses, no doubt remains as to the character of the disease.

In treating this disease the external inflammation may be disregarded. Cloths wet in flaxseed mucillage and applied over the eye are soothing and comfortable, and are the only applications necessary for the erythema.

To combat the constitutional affection, three indications are presented, enumerated in the order of their urgency—to support the system, to relieve the pain, and to cure the internal inflammations.

In almost every case diffusable stimulants are imperiously demanded, without regard to the seat of inflammation, to meet the first indication; and I know of nothing better than milk toddy, the ingredients of which are always at hand. This I give in quantity and frequency regulated only by the condition of the pulse. In one instance of extreme prostration I gave a quart of brandy during the night, and frequently had to give for many successive days a pint in the twenty-four hours.

Quinine in grain doses every two or three hours is generally administered with the same view.

To assuage the pain in the frontal sinuses, to which we are urged by the entreaties of our patients, the tincture of iodine freely and often applied to the skin, over the superciliary arches, affords very decided relief. Chloroform so applied relieves for a time, but

the pain returns much sooner than when controlled by the iodine. This effect of iodine is independent of the presence of external erysipelas. Free cupping and subsequent blistering of the temples is naturally first suggested by the severity of the pain; but they have failed of relief in the great majority of cases in which I have tried them. I still use them in many cases with the hope of preventing the extension of the disease to the brain, or of favorably modifying the inflammation, but do not expect them to control the suffering of my patient. The same may be said of these means when applied for the relief of pain induced by this disease in any other locality.

Morphia has an exceedingly limited anodyne influence in this disease. In some cases when my patients have been frantic with pain in the side or frontal sinuses, I have given morphine in large and increasing doses until upon the verge of narcotism; but not often have I obtained the desired result.

In ten or twelve recent cases of this disease I have used the veratum viride with the happiest effects. As soon as the heart's action is controlled the pain gradually abates and soon disappears entirely, and the sufferer expresses himself at once as feeling very much better every way. For several days past no case of this epidemic has presented, and I hope the opportunity may not occur to me of testing still further the power of this valuable remedy.

In adddition to the remedies detailed, I have in every severe case used mercury, and where the lungs were implicated, ipecac in small and repeated doses, with the view to affecting the system. This effect has, however, been produced in no single instance, and I cannot speak definitely of its value.

The mortality from this disease, notwithstanding its apparent gravity, has not been large. Except those cases which attacked the brain, and one in which the heart became implicated, I have known of but two decided instances of this disease proving fatal.

The average termination of this disease is in the second week; but a few are protracted much longer. In this as in all other epidemics passing through a family, some of the members have had it very lightly, but a large majority have demanded the attendance of a physician.

Measles has prevailed very extensively during the spring, and intermixed with it or following closely after it, roseola has been co-extensive. These diseases have generally been mild, seldom requiring the attendance of a physician, except when complicated with pneumonia.

Five cases of puerperal convulsions came under my notice during the first six months of the past year. They were all in the same neighborhood and occurred previous to delivery. Three of them died, neither of which did I see until coma was complete and the convulsions incessant. They were treated by copious bleeding, cupping, blistering, purging and chloroform. The fatal cases were never delivered. These are the only cases I have met with in a practice of ten years, and it is a little remarkable that they should have occurred so near in time and place.

DISEASES OF FRANKLIN COUNTY.

A Report on the Diseases of Franklin County, Submitted to the Medical Society of N. C., at its late Meeting, by William R. King, M. D.

(CONTINUED FROM THE AUGUST NUMBER.)

OBSTETRICS AND DISEASES OF FEMALES.

PLACENTA PREVIA.—Two cases of this unfortunate accident have occurred within the last year; one in the month of August, 1857, another in February of the present year. The first was conducted to a favorable termination—the last proved fatal. In both the hemorrhage was alarming. The first case was in a robust, healthy woman, aged forty, in labor with her twelfth child. She was just entering upon her ninth month of utero-gestation. The os uteri was about one inch in diameter, and filled with a part of the lower edge of the placenta; the waters having been discharged. It was not in a condition to justify forcible delivery by turning. The pains by this time began to appear; although they were weak and inefficient, yet with the return of each there was an excessive discharge of blood. Patient grew weaker—pulse nearly imperceptible. Death appeared inevitable. Version by the feet was the only hope held

out for the patient in this condition; but in this case the state of the os uteri rendered it impracticable. I concluded, however, to try the effects of ergot, as the last hope for the patient. It was accordingly administered in the usual manner, and very soon increased the pains, both in force and frequency. Another vaginal examination was then made, and to my satisfaction the foot of the child was found protruding through the os, with one inch and a half of the lower margin of the placenta, which quite surrounded the leg. The foot was quickly seized and drawn out beyond the vulva. The thigh was thus brought within the grasp of the os uteri, which, along with forcible uterine contractions, served as a compress to the bleeding vessels, and effectually arrested the hemorrhage. The other foot was searched for, found, and brought down, and the child delivered, dead, without much difficulty. The secundines were in due time removed, and the tonic contraction of the womb secured. During this state of things, the patient was pulseless, covered with a cold, clammy sweat, and insensible, except when aroused to swallow stimulants, which were freely administered during the time. She remained in this prostrated condition, pulseless, for six or eight hours before reaction began to appear. She slowly recovered, and is at the present time in the full enjoyment of health.

In the management of the second case, there was nothing worthy of special notice. The patient was so far exhausted from hemorrhage after the delivery that reaction could not be restored.

Displacements of the Uterus.—A number of cases of retroversion, anteversion and prolapsus of the uterus have been treated. One case of anteversion of long standing, accompanied by shortening of the ligaments, was cured by the constant use of the gum-elastic air pessary, which is familiar to the profession.

In those cases of displacement of the uterus, accompanied with inflammation or engorgement of any part of the organ, which, according to my experience, exists in a large majority of cases, I have found that it was worse than useless to attempt a cure by the usual means of sustentation recommended for that purpose. Indeed, after the inflammation of the cervix is cured by

speculum and caustic, astringent injections, &c., I have observed that in most cases the use of any form of pessary was followed by pain and uneasiness in the vagina and lumbar regions, accompanied with strangury and leucorrhœal discharges. I will here give a summary of a case in point. The patient is a lady of spare and delicate form and nervous temperament, and mother of eight children. Some months after the birth of the last she began to complain of pain and other distressing sensations in the uterine region, accompanied with strangury and profuse leucorrhœal discharges. Along with these symptoms there was great mental depression, sleeplessness, palpitations, and many other symptoms of the hysteric disorder, all of which were greatly aggravated at each catamenial period. After trying the usual remedies for uterine disorder, without any relief to the patient, a vaginal examination was made, when the womb was found very much prolapsed and anteverted, the fundus being very low down behind the pubis, and the os towards the rectum, entirely beyond the reach of the finger. A speculum examination was afterwards made, which revealed a highly inflamed and engorged cervix, from which flowed a considerable quantity of muco-purulent matter, also a glairy mucus.

In the treatment of the case, attention was given to the general symptoms as well as the local affection; although I was satisfied that the former was only symptomatic of the latter. The inflammation of the cervix was treated by a variety of astringent vaginal injections, and finally with speculum and caustic; while internally, tonics, alteratives and anodynes were administered according to circumstances. After the lapse of several months under this treatment, the inflammation of the cervix was cured, and there was likewise an improvement in the general symptoms, although the organ remained anteverted. A great variety of mechanical contrivances have been tried in vain, to sustain it in its normal position. Even the gum-elastic air pessary cannot be worn only for a day or two at a time without creating pain and other symptoms of uterine distress. Whenever the organ falls very low behind the pubis the most distressing hysterical symptoms ensue, over which nothing in the long list of anodyne anti-spasmodics has any control; but every symp-

tom of pain, spasm and mental disturbance can, as by magic, be dispelled by simply elevating the womb to its natural position. She will then enjoy comparative tranquility of mind and freedom from uterine distress, for several days together, when, from over-exertion or some other cause, the same train of general and local symptoms will recur. When the finger comes in contact with the body of the womb, in attempting to elevate it, such intense pain is produced as to cause the patient to cry out, followed immediately by hysterical spasm and delirium. At the same time there exists a great deal of tenderness in the hypogastric region. But as the organ begins to rise before the finger, the pain and all other symptoms instantly disappear; and when fully elevated, it will bear a reasonable amount of handling without creating the slightest pain.

Although no traces of inflammation of the cervix could be detected at the time the speculum was last used, I am inclined to suspect, from a continuance of leucorrhœal discharges and other symptoms, that it still exists high up in the cervical canal, and, perhaps, in the delicate lining of the uterine cavity.

This patient remains in feeble health, enjoying but very short intervals of exemption from suffering in some form. A return of each catamenial period brings with it all the local and general symptoms above described. She will be kept upon a tonic and mild alterative plan of treatment, and the carbonic acid gas as a local anaesthetic, as recommended by Prof. Simpson, of Edinburgh, to allay pain and other unpleasant uterine symptoms.

Dysmenorrhœa.—The great difficulty I have had to encounter in the treatment of this form of female disease, especially in unmarried females, was in ascertaining on what pathological state of the uterus the disease owed its existence; whether it was inflammatory engorgement of the body of the organ, or the delicate lining of its cavity; inflammation, or hypertrophy and induration of the cervix, or contraction of the cervical canal.

Whenever by a thorough investigation I have been enabled to discover the true cause of its existence, the treatment is at once directed to its removal. But as patients who labor under this disease are generally exempt from suffering during the intervals of the catamenial periods, these investigations, especially when

the touch or speculum is required, are not often allowed; hence the treatment is seldom more than palliative. When called to a case in which the true cause can only be inferred from a close inquiry into the symptoms, I commence by giving one of the following pills night and morning—commencing a few days previous to the menstrual epoch—until six or eight are given; observing the effects on the bowels.

℞.—Aloes, Rhubarb, ... *a a*..... gr. xxx

Calomel..... ..... gr. xv

M. Divide into 30 *pills.*

The patient is ordered to remain in warm hip-bath every night, from fifteen to twenty minutes. On coming out the parts to be wiped perfectly dry, and friction, with the flesh brush or coarse flannel, kept up until the capillary circulation is actively excited—after which a warm foot-bath, and then to bed. If these measures failed to prevent a return of uterine tormina, a large mustard cataplasm was applied to the lower part of the abdomen, and where not contra-indicated by much febrile excitement or cerebral determination, anodyne injections were also given, and generally with very prompt relief. If leucorrhœal discharges of a muco-purulent matter, or if a glairy mucus should exist, vaginal injections of the chlorate of potassa or some other astringent article was freely used. When this plan of treatment was persevered in for some time it always succeeded either in greatly palliating the symptoms or in effecting cures.

One case of this disease, accompanied with hypertrophy and induration of the cervix uteri, which the speculum revealed, was treated by the application of the pencil of the nitrate of silver every sixth or seventh day. In this case the lips of the os were tuberculated or noduled—evidently a kind of nutritive hypertrophy. These nodules varied in size, from the point of the little finger to that of the thumb. In fact almost an exact likeness of its appearance can be made by clustering the fingers to a point, causing the hand to resemble a cone in shape—the apex or ends of the fingers representing the os uteri. These nodules slowly dissolved under the stimulating contacts of the nitrate in the course of several weeks, at which time the patient menstruated

without much pain. I saw her several weeks ago, it being several months from the time the treatment was stopped, when she informed me that at her last monthly period, the catamenia appeared without any premonition.

ON VARIATIONS OF COLOR IN THE VENOUS BLOOD OF GLANDULAR ORGANS IN CONNEXION WITH THEIR STATE OF ACTIVITY OR REPOSE.

By Claude Bunard. (*Translated by Edward Warren, M. D.*)

Since the discovery of the circulation, two kinds of blood have been recognized, the one red or arterial, the other black or venous. This difference of color in arterial and venous blood has been regarded as so characteristic, that it has served as a basis of anatomical division between the organs of circulation, since the times of Bichat.

"I divide," said that anatomist, "the circulating apparatus into two parts; one carries the blood *from* the lungs *to* all parts of the body, the other returns it *from* all parts *to* the lungs. The first is the arterial or red blood circulation; the second that of the veins or black blood."

The facts which I have the honor of communicating to the Academy, will demonstrate that the expressions venous blood and black blood are not synonymous; that there is a normal state wherein the former is perfectly red like that of the arteries, and that it may be red or black according to the circumstances which surround it. But that which renders my investigations particularly interesting to physiologists, is the establishment of a direct connexion between these variations of color and certain established conditions of organic action. A few years since, in 1843, in making some experiments upon dogs in relation to the elimination of various substances by the kidney, I was struck with the fact that the blood discharged from this organ by the vein was as red as that which entered it by the artery. This crimson tint was the more apparent because of its decided contrast with the black blood of the vena cava, in which it empties.

Recently in my course at the College of France, I have re-

peated this first experiment with a view to the farther investigation of the subject. I have found in the rabbit, as in the dog, that the renal veins contain red blood which mingles visibly with the black blood of the inferior vena cava. Whilst, on the other hand, the lumbar veins, which are distributed in the immediate neighborhood of the renal, contain black blood, as does the little muscular vein entering into the vessels of the left kidney.

In repeating this experiment both upon the dog and the rabbit, I have invariably observed that the ordinary crimson color of the renal vein changes its tint and even becomes perfectly black under the influence of certain circumstances, which differ from those in which this peculiarity manifests itself. So that a contradiction is apparent in this connection, if the experimentor confines himself to an isolated observation. This, unfortunately, is generally so in physiological investigations, when a hasty and insufficient distinction is drawn between those complex phenomena and most variable conditions which are associated necessarily with every living organism. After having established the existence of these two distinct appearances of renal blood, it behooves us to determine what relations they sustain to the kidney when engaged in the performance of its functions. For this purpose a small silver tube must be placed in the ureter, through which the urine may be seen to flow drop by drop, and almost continuously. This having been made manifest, it can be shown also, that not only the blood of the renal vein, as well as the tissue of the gland itself, assumes a brighter hue whilst the urine is flowing from the tube, but that this secretion is arrested under the influence of those circumstances which in giving a dark tinge to the contents of the renal vein render the organ itself slightly blue in appearance. From which the conclusion seems inevitable, that it is necessary to connect the scarlet color of the renal vein with that active state of the organ in which its legitimate functions are performed. It appears likewise, that the chemical character of the urine does not affect this phenomenon, and that the renal vein is equally red in the dog, whose urine is acid, as in the rabbit, the urine of which is alka-

line during the process of digestion, and acid after an abstinence of twenty-four or thirty-six hours.

It is unnecessary at this time to mention all the influences which are capable of deranging the secretion of urine, and of preventing a change in the color of the renal vein. I will limit myself simply to a notice of those distressing causes which are connected with the performance of the experiment itself. If an observation of this colorization of the renal vein be desired, it is not sufficient simply to open the abdomen freely, and to remove the intestines in such a manner as to expose the kidneys and their veins. So grave an operation as this, causes, both in the dog and rabbit, if not immediately, in a few moments at farthest, a complete suppression of the urine, whilst the blood of the renal veins deepens in color, and becomes often as black as that of the vena cava itself. The most convenient method of performing the experiment, consists in making a small incision in the lumbar region similar to that for nephrotomy. It is preferable to operate upon the left side, because the renal vein of that side being larger than that of the right, it can be found with more facility. Through the same incision the ureter can also be isolated, and a silver tube inserted in order to see that the urinary apparatus secretes properly while the experiment is being performed.

From all these considerations it follows evidently, that the blood of the renal vein which presents habitually a red color in connexion with the secretion of urine, cannot be included in that definition of venous blood quoted in the preceding pages of this article.

The first question which presents itself to the mind in view of those experiments is, as to whether or not this alteration in the color of renal blood is an isolated fact confined to the kidney, or is true to the same extent of the other secretory organs having an analogous function. To determine this point I directed my attention to the sub-maxillary gland of a dog, which is particularly well adapted to this experiment because of its isolated and superficial position. I then found that the vein of this gland, though manifesting many anatomical varieties, presented the same physiological phenomena as that of the kidney. In my first experiment, which was made on the 28th of last

December, at the College of France, I proved that the blood discharged from the gland was as dark as the most decided venous blood of any other locality. This, however, afforded nothing in contradiction of what had been established respecting the renal vein, for the salivary secretion is intermittent, and the gland does not secrete at the instant when the presence of the dark blood is observed in the vein. It is necessary then to determine if by making the sub-maxillary secrete, the color of the blood contained in its vein can be changed and made to assume a different hue. For this purpose I introduced a few drops of vinegar into the mouth of the animal, to promote, by reflex action, the salivary secretion. My predictions were thus fully verified, for in a few moments the color of the blood changed its tint, both in the vein and in the gland, and from being black, became soon very brilliant and returned again to its original hue when the secretion had been arrested.

Again, in order to remove all doubt respecting the matter, I isolated the duct of the gland and introduced a small tube into it, having previously dissected out that branch of the lingual nerve which is distributed to this organ. Having thus under my observation the submaxillary gland, its duct with the inserted tube, and the nerve which presides over its secretory function, I could easily see that when the organ was at rest nothing was discharged from the tube, and that black blood circulated in the vein of the gland; whilst whenever the nerve was excited by galvanism, the blood in this vessel became red, and on the withdrawal of this stimulus returned to its primary appearance. This experiment was repeated a number of times, and with the same results. I perceived also that an interval of a few seconds always elapsed between the excitation of the nerve, the appearance of the liquid secreted, and the change of color in the blood. The latter was always late in appearing, just as if the gland required a certain length of time to empty itself of the black blood before it received a supply of the other. For a like reason doubtless, it happens also that the red color remains some instants after the cessation of secretion; or in other words, the red color always changes gradually into the black and *vice versa*. And finally, it was observed that the blood circulated more rapidly

and abundantly when red; that is, when the organ is in action, than when black and the organ is at rest. Up to the present time this experiment has been frequently repeated upon dogs, and invariably with the same results, except some differences in the intensity of the phenomenon, corresponding with the strength or weakness of the animal. These observations upon the submaxillary demonstrate then that its venous blood is alternately dark and red, and that these variations correspond exactly with the intermittance of the functions of the gland. The two series of results obtained by experimenting upon the kidney and the submaxillary gland are not isolated facts, but doubtless true of the other glandular organs. The experiments which I have commenced upon the parotid gland, and upon the abdominal glands of the digestive apparatus, have furnished me up to this period the same general results, although the investigation can not be considered complete until researches have been made in each particular organ of the secretory series. To resume—it is evident from the facts established in this communication, that if it be desired to preserve the distinction between venous and arterial blood—which is in truth the venous blood of the pulmonary organ—the term black blood can not be employed, except in a general way, in describing the contents of the veins. We have established conclusively that venous blood may be *red* or black, according as it is examined in connection with the activity or repose of the organ through which it circulates, which states correspond in a measure with its static and dynamic condition, and constitute on that account an important element in all physiological and chemical investigations of the blood. In fact it is not only in color that the blood of a quiescent organ differs from that of a secretive one; but it presents certain other distinct and peculiar features, which indicate great dissimilarity in chemical composition. Thus, the blood of a secreting kidney does not readily coagulate, and sometimes presents no clot at all—whilst that contained in the vein of the gland during its quiescence is black, and presents a consistent clot immediately after it has been drawn.

It is certainly true that physiologists and chemists had already demonstrated that venous blood is not always identical, and that

in order to ascertain its character, it is necessary to analyze that of each separate organ; but they had never made their investigations practical by testing the blood of each gland, separately and comparatively, for the purpose of ascertaining its composition and properties in connexion with the excitement or repose of the organ. And from what has been already said, I am justified in declaring that there is a greater difference between the blood of the same gland according as it is in action or at rest, than between the blood of any two given glands in the animal economy. This is not only true of glands, but of all the organs of the body, whatever their character, function or locality; and hence the importance of experimenting upon each one of them, both whilst performing its peculiar offices and when in its normal condition of inaction. In this manner each particular tissue can be distinguished; thus, if the blood leaving a part be red, the presence of a secretory gland is demonstrated, whilst on the other hand if it be *black* and possess certain other physicial characteristics, the existence of muscular tissue in the process of contraction is established. The philosophy of this phenomenon is only explicable by referring it to certain ultimate chemical analyses of the blood, the physiological conditions of which I have simply indicated at the present time. I will conclude with this remark,—all the changes of color which connect themselves with the functional activity of various organs, are due entirely to the influence exerted upon the blood by the nervous system. This connection between the organic tissues and the sanguineous constituents of the body, furnishes a basis for the conclusion that the nerves play a special and peculiar part in all those physio-chemical phenomena which constitute and distinguish animal life throughout its multitudinous ramifications. The establishment of certain facts relating to this important point of general physiology will form the subject matter of my next communication to the Academy.

Experiments.

(1.) Upon a large dog, during the process of digestion, I exposed the sub-maxillary by dissecting it from the surrounding tissues, and after elevating the muscles, I introduced a small

tube into the duct of the organ, and isolated the nervous filament distributed to it. The vein was found to contain black blood, the organ being perfectly quiescent. When every thing was thus arranged, and the animal had become tranquil, I galvanized the nerve with the apparatus of Breton. As soon as saliva escaped from the tube the venous blood of the gland assumed a brighter tinge, and not only flowed in a larger volume, but actually pulsated perceptibly. I collected the red blood and compared it with that from a neighboring artery. The two liquids had at first the same tint, but after a brief interval the blood from the vein became black, whilst the arterial blood retained its color for a much longer period. When the galvanic current was withdrawn the saliva ceased flowing, and the blood assuming its original appearance became black and flowed in a continuous stream, as in the other vessels of the venous system. The animal was then permitted to rest for some time, when the experiment was resumed, and with the same results. So long as saliva was secreted, the blood leaving the gland was red, circulated in a greater quantity, and flowed in jets.

(2.) The gland of a dog was exposed as in the last experiment. The departing and entering blood was black, whilst the organ remained quiet; but it became red and more abundant, when galvanism was applied to the nerve, and the secretion promoted. I then cut the filament of the sympathetic which follows the artery and is distributed to the gland itself, the blood became red, though there was no longer any secretory action. When this filament was galvanized, the blood appeared black and diminished in quantity; whilst on the arrest of the current the blood assumed a red color again and flowed more abundantly.

(3.) The submaxillary of a dog was exposed as above. The nerves were then isolated, the tube introduced in the duct, the vein opened, and black blood drawn from the wound. By ligating the sympathetic filament the blood assumed a red color and flowed more abundantly, whilst the secretion was suspended. On the application of galvanism the blood turned completely black, flowed less copiously, and in a short time ceased running altogether. After the animal had rested for some time the blood returned to its crimson color. The glandular filament of the lin-

gual was then found and a galvanic current directed through it, when the saliva escaped in flakes, and the venous blood preserved the same brilliant tint it had first assumed; but it flowed more abundantly and in jets, which were isochronous with the pulsations of the heart. When the sympathetic filament was subsequently excited by the galvanic current, the same phenomena indicated above were reproduced, though not so decidedly as in the first experiment. After an interval of repose on the part of the animal, the filament proceeding from the facial nerve was again galvanized. Saliva was abundantly secreted, whilst the venous blood grew brighter in color, issued in decided jets, and was projected for a considerable distance, as if discharged from an artery.

CITRINE OINTMENT.

By B. F. Fessenden, M. D., Plymouth, N. C.

The citrine ointment as commonly prepared soon loses its golden yellow tint and becomes hard, brittle, and of a pale slate-gray color. Great difficulty is therefore experienced in preparing it so as to retain its color and softness.

This change has been attributed by Dr. A. T. Thompson and others to the lard, which they say is oxidised and hardened by the acid. This, however, is not true. It is the olive oil which has been found to be "solidified by nitrous acid, and by the nitrate of mercury, and converted into a peculiar fatty substance which has received the name of elaidin." Mr. Duncan has prepared this ointment entirely with lard, and it preserved its color and consistency much better than when prepared with the olive oil. The hardness of the ointment therefore, is owing to the reaction of the nitrate of mercury upon the peculiar olein of the olive oil, and not upon the lard, as stated by Dr. A. T. Thompson, for the ointment has been found to be much harder when made with that oil alone, than with a portion of lard, or when made entirely with the lard.

In the last edition of the United States Pharmacopia, neats-foot oil was substituted for the olive, with, I think, but little advantage, as it will after a time change in color and consistency,

becoming lumpy, and acquiring a dirty yellow hue, marbled with green blotches, though it never becomes as hard as when prepared with the olive oil. It has been ascertained that the "olein of all oils which have not the drying property, undergoes the same change when acted on by nitrous acid." They also undergo that change when acted on by the nitrate of mercury. I have, therefore, in preparing the citrine ointment, substituted the flax-seed oil (which has the drying property) for the neats-foot, with, I think, decided advantage. I prepare it according to the following formula, which yields the most perfect citrine ointment that I have seen.

Take of purified mercury, an ounce; nitric acid, an ounce; lard, eight ounces; fresh flax-seed oil, eight ounces; dissolve the mercury in the acid; then melt the oil and lard together, and when they begin to stiffen, (upon cooling,) add the solution and mix them. It should be prepared in a glass or well glazed earthenware vessel. The metallic solution should be added gradually, and the ointment should be stirred with a wooden spatula until perfectly cool.

Prepared according to the above directions, this ointment has all the medical virtues of the one prepared by the officinal formula. It is of a deep orange color, soft, unctuous and consistent, which characters are not lost by keeping nor deteriorated by time. The difference between this and the officinal formula consists in the much smaller proportion of acid employed, (that and the mercury being used in equal proportions,) in the larger quantity of oil and lard, and in the substitution of flax-seed oil for the neats-foot.

The medical properties of this ointment are those of a stimulant and alterative, and as such is much used in the various forms of psoriasis and pityriasis. It will be found particularly useful in that variety of the former disease which usually attacks the hand, termed psoriasis palmaiia, and which is sometimes so difficult to remove. It usually makes its appearance with some irritation and itching along the course of the lines of the palm; a little scab is formed, which is rubbed off, and a slight discharge takes place; minute scales instead of a healthy cuticle, present themselves, which from time to time becomes detached. Event-

ually the course of the greater portion of the muscles of the hand are occupied by fissures more or less deep, so that the hand can not be extended without the greatest difficulty and pain. The ung. hydr. nitr. diluted with an equal part of hogs' lard has been found the best remedy for expediting the cure. When this disease attacks the prepuce in the form of deep cracks or chasms around the margin, and is exceedingly irritable, in the chronic stage, this ointment will be found to be the best possible application.

In psoropthalmia, applied to the edges of the lids two or three times a day, it will prove singularly useful in relieving the itching and in healing the ulceration. It has been found an excellent remedy in the treatment of albugo of long standing; when a highly stimulating application is required, it should be applied by means of a camel's hair pencil to the surface of the speck once or twice daily. It answers as an excellent application in the purulent opthalmia which some children are subject to soon after birth. I once saw a case which commenced four or five days after birth by a slight redness and tumefaction of the conjunctiva lining the eyelid. This was speedily followed by the secretion of a thin adhesive matter, which glued the lids together. In a few days the discharge became very copious, thick in consistency, and acquiring a yellow cast; there was considerable contraction of the eyelid. After other remedies had failed, the citrine ointment was employed, (diluted to one-fourth its strength with simple cerate,) by means of a camel's hair pencil, with perfect success. The opthalmia was supposed to proceed from leucorrhœa, which was applied to the eye during the passage of the child through the vagina. An excellent remedy in chronic inflammation of the lining, and particularly of the edges of the eyelids—caused by a deposition of acrid matter on the glandular bodies in the margin of the eyelids. The eye seems to be surrounded with a red circle, and the palbebra cannot be easily opened in the morning, owing to a morbid secretion of glutinous matter. The most successful treatment for this affection is to melt a little of the ung. hydr. nitr. in a spoon, and smear it over the inner surface and edges of the eyelids at bed time, with a camel's hair pencil. When the eversion of the lids keeps up a

morbid state of the conjunctiva, after the activity of the disease has subsided, the ung. hydr. nitr. may be used to exterminate the last remains of the disease. It is considered as an efficient remedy in crusta lactea, a disease that mostly attacks some parts of the face of children at the breast. It is known by an eruption of broad pustules full of a glutinous liquid, which forms white scabs, when they are ruptured; a small quantity of the ung. hydr. nitr, rubbed upon the affected part once or twice daily, will not fail to relieve the disease. A remedy in certain forms of herpes, that form which usually attacks the head, and consists in an assemblage of numerous little creeping ulcers, in clusters, itching very much, and exceedingly difficult to heal, but terminating in scales—the scalp should be shaved and the citrine ointment applied to the affected part once daily. It is one of our best remedies in that form of ringworm which generally makes its appearance on the head in a small circle of redness, but which increases in diameter by degrees, and contracts a scurf, whilst the hair separates at the roots from the slightest touch. When the scalp is much affected, the treatment adopted should be to shave the head every four or five days, and apply every night the citrine ointment, which should be washed off every morning with warm water and soap, by means of a piece of soft flannel. Used as a stimulating application in the various forms of porrigo, as tinea capitis, which consists in a chronic inflammation of the skin of the head, productive of a secretion of matter peculiar in its nature, and capable of propagating the complaint if applied to the scalp of a healthy subject. The disease is at first confined to a small portion of the head, but by degress its acrimony is extended to the neighboring parts, until at length the whole scalp is eroded and beset with a scabby eruption; children are especially affected with this disease. The treatment consists in shaving the head close and rubbing a small quantity of this ointment over the surface of the disease twice daily. It is also usefully applied in those scurfy eruptions of the head, which are observed in children, where a thin ichor pervades the cuticle and excoriates the parts. It has also been found to prove successful in obstinate cases of gleet, when most other remedies had failed. It should be applied by means of a boujie, on which some of the

ointment is smeared. It is also used in different forms of cutaneous eruptions connected with superficial inflammation or ulceration; it should be diluted with lard, unless a very stimulating application is required, whilst some care is necessary to avoid the risk of salivation. I have never known it to produce that effect in a single instance, though I have given it a thorough trial.

CASE OF SCROTAL HERNIA.

By Geo. H. Coke, M. D., Edenton, N. C.

I WAS called on the 28th of July last, to Mr. John S———, to attend a negro infant (aged ten days,) with scrotal hernia on both sides. I found my patient apparently in the greatest agony from the protruded viscus, suffering with high fever, profuse diarrhoea, and enormous distension of the bladder, which had not been emptied for sixteen hours. I succeeded in a very short time by taxis, in restoring the bowel on one side—it being congenital and irreducible on the other side. I immediately procured a catheter and succeeded in emptying the bladder, and ordered minute doses of hydrarg cum creta and Dover's powders; which in the course of the day following checked the diarrhoea, and the fever subsided.

I drew off its urine on the the evening of the 28th of July, and left my little patient comparatively comfortable, expecting to see him very early next morning; I did not see him however until 9 o'clock. Upon inquiry I ascertained that its bladder had again filled, and that it was suffering excruciatingly from the distension, until its mother, with that ingenuity peculiar to the female when its young is in danger, resorted to the expedient of drawing off its urine by suction with the mouth, which she did, to the almost instant relief of her suffering babe. It seemed so much more agreeable to the little patient than the introduction of a catheter, that I allowed her to draw off its urine in that manner for two days, at the end of which time it was able to expel the contents of its bladder voluntarily. At the end of four days I discharged my little patient entirely restored to health, with the exception of the congenital rupture.

This case is reported, not on account of any peculiarity in the character of the disease or in my course of treatment; but on account of the novel means adopted by the mother to relieve her suffering infant. It struck me as exhibiting a degree of maternal affection and ingenuity as rare as the means adopted for the relief of the little sufferer.

BIBLIOGRAPHICAL NOTICES AND SELECTIONS.

SILVER SUTURES IN SURGERY.

By P. Marion Sims, M. D., Surgeon to the Womens' Hospital. New York, 1858.

At the last anniversary meeting of the New York Academy of Medicine, Dr. Sims delivered a discourse with the above title, which has been published in pamphlet form, and extensively circulated. No production of the kind has ever met with so favorable a reception, and its talented author has at once secured a reputation, both in this country and in Europe, which will place him in the front rank of his profession—whilst it reflects great honor upon the country of his birth. Although he enters largely into the general question of the proper material for sutures, his address is mainly devoted to the subject of vesico-vaginal fistula, that most distressing of all the accidents incident to parturition, and which, up to the present time, has constituted the reproach of surgery. With all the enthusiasm of a devotee, he declares that the employment of silver wire as material for sutures is the great surgical achievement of the nineteenth century, and predicts that it is destined to effect a complete revolution in the method of dressing wounds—obviating the necessity for healing by the suppurating process, and erasing the very names of erysipelatous inflammation and hospital gangrene from the vocabulary of medicine. According to him, the silver thread is to become as necessary to the dressing case as the needle itself, and in less than fifty years, all other sutures are to be regarded as remnants of a barbarous age—whilst the statistics of our hospitals are to show such a vast improvement in their bills of mortality after capital operations as will astonish the world. This

is evidently the language of a man fully persuaded of the truth of what he utters, and impressed with a profound conviction of the advantages which must result from the general application of silver sutures instead of the common thread now so universally employed. But although we have some faith in the propriety of this substitution, we can but esteem Dr. Sims too much of an enthusiast to be entirely reliable in a matter of such practical as well as scientific importance, and which demands for its elucidation that close investigation, that deliberate judgment, and that logical analysis which pertain alone to the impassable intellect of the true philosopher. With the establishment of these comprehensive principles and the knowledge that an interrupted suture is alone sufficient in general surgery, Dr. Sims next step was to treat vesico-vaginal fistula by the clamp suture with silver wire. This, certainly, is a rash improvement on the cautery of Dupuytren, the cysto-plastic barbarities of Jobert, and the senseless occlusions of Vidal, and if attended with the same marvelous success in the hands of others as in his own, it must prove an imperishable discovery, as well as an inestimable boon to humanity. Dr. Bozeman, of Alabama, perceiving immediately the advantages of this method, attempted to improve upon it by substituting the *button* for the *clamp*, and with apparent success; but Dr. Sims, determining to suffer no defeat in a field where he had won so much renown, pursued his experiments still farther, and subsequently applied his method with *unvarying success;* dispensing alike with *clamps* and *buttons*, and simply twisting the wire of virgin silver. This simple plan of operating, Dr. Sims has also extended to lacerations of the perineum, and found it of equal value, thus dispensing with division of the sphincter ani, as proposed by Horner, which is a most horrible and unnecessary expedient. Without designing to disparage the achievements of our fellow countryman, or to pluck a single laurel from his brow, we must say, that he can neither lay claim to originality in the use of the silver suture, nor vindicate the feasibility of employing a wire of this substance in preference to that of any other metal, even in the treatment of vesico-vaginal fistula.

Walnas bound a *silver wire* around the front teeth in central

fractures of the lower maxilla, just as Hippocrates and Paulus Aginaeta had done with a thread of gold in their day.

Levret called the attention of the profession to the advantages of removing uterine and other polypi by constricting them with a *silver wire*. Purman of Breslau, used *silver wire* in wounds of the tongue at the beginning of the last century. Mr. Mihles in his "Elements of Surgery," published in 1746, speaks of employing *silver threads* in the operation for harelip. Dieffenbach, of Berlin, in 1826 recommended metalic sutures in the very lesion now under consideration, as a most valuable means for its speedy relief. Dr. J. Kearney Rogers of New York, used *silver wire* as a suture between fragments of bone ; and Dr. Levert, of Mobile, also experimented with this very material, as well as with lead, gold and platinum, at least twenty years since. From these facts, as well as from many others of a similar character which might be collected from the history of surgery, it is evident that the silver suture is no new discovery, but that from the earliest times it has been employed in the manner proposed by Dr. Sims. Whatever credit then, may be due him for reviving, extending, and applying this process for restoring the continuity of wounded tissue, he certainly can lay no claim to originality in this connexion, for that honor belongs to those whose genius illuminated the earliest eras of medicine.

Again, with all his prophetic pretension, overweaning confidence, and marvellous success, he has not proved that silver is a better material for sutures than other substances. Wutzer has had great success with the ordinary thread ligature in treating vesico-vaginal fistula, as have Hobert, Naegele, Kilian, Hayward, Brown and others. Dieffenbach employed sutures made of lead with great advantage ; and Mettauer taking the hint from him, first attempted the same method of treatment in this country, with a degree of success which will compare favorably with that of Dr. Sims himself. Dr. Simpson, after testing all the various kinds of sutures, declares that gold, platinum and copper are more pliant, and tenacious than silver, and for that reason, he prefers them in all instances where a metalic wire is indicated. It follows from these statements that the idea of employing sutures made of wire in this connexion, did not originate with Dr.

Sims, but that he simply substituted silver for the lead, &c., employed by other surgeons, which, though a valuable suggestion in itself, is far from possessing the great merit claimed by its author in this most grandiloquent production. Why silver should be *par excellence* the material for sutures, can neither be explained upon scientific principles, nor established in any manner save by the dictum of Dr. Sims himself. Other metals are more ductile tenacious and pliant, whilst less irritating to the tissues with which sutures are brought in contact, so that the mysterious virtue thus ascribed to virgin silver exists only in the imagination of this over confident aspirant for fame and fortune. In other respects Dr. Sims is an imitator; thus, the first steps of his revised plan of operating is that of his rival Dr. Bozeman, the twisting of the wires is borrowed from Dr. Mettauer, of Virginia; the director employed for drawing the wires together is a copy, and the position of the patient, so graphically described and earnestly insisted upon, is familiar to every one acquainted with the works of Velpeau, Chelius, Churchill and Pauldost, although it is far from being regarded as the most convenient either for operator or patient.

We think also Dr. Sims has displayed too much of that jealousy and illiberality, which have so long been the bane of our profession; and that in thus descending to ungenerous aspersions he has done more to detract from his own pretensions, and to advance the claims of the very rivals against whom he rails, than the combined efforts of all his enemies could have effected in a century. With all these faults, Dr. Sims' address is an able and interesting one, and his efforts in this particular department of surgery deserves the warmest thanks of the profession, as they must secure for him a distinguished position, wherever humanity has a friend or science a votary.

The egotism which induces so exagerated an estimate of his own performances, and prompts to the exhibition of so much jealousy and assumption in his dealings with real practitioners, may excite a smile of ridicule or contempt, but it cannot detract from the value of the service rendered, or abate in the slightest particular that grateful homage which is accorded to the benefactors of the race.

PRACTICE.

The Therapeutic Relations of Opium and Belladonna to each other.

By Benjamin Bell, F.R.C.S.E.

(Read before the Medico-Chirurgical Society.)

I have often thought that less attention has been given than its importance deserves, to a doctrine which seems to be undergoing gradual development, namely, that opium and belladonna are mutually remedial when either of the two has entered the circulation in a poisonous dose. The earliest step towards this opinion appears to have been a suggestion thrown out about twenty years ago, by Dr. Corrigan of Dublin, while attending, along with the late Dr. Graves, a case of typhus fever, in which both of them took a deep interest. The patient, a gentleman in the prime of life, had a sound constitution and a vigorous frame. During the course of the illness, his head became greatly implicated, with a remarkable contraction of the pupil. Tartar emetic with opium, a favorite and successful remedy of Dr. Graves, as is well-known, in cases apparently very similar, was prescribed, but without good effect, and the patient died. Dr. Corrigan suggested during their subsequent conversation, that under similar circumstances, *narcotics which produce dilatation of the pupil might be beneficial.* The observation struck Dr. Graves as being curious and important, and with his usual activity of mind, he determined to put it to the test of experiment on the first favorable opportunity.

The result of his various observations and experiments seemed to be this—that the internal use of belladonna is a valuable remedy in cases of cerebral excitement coming on in the course of fever, when there is a marked tendency to that very unfavorable symptom, contraction of the pupil; and that, under such circumstances, opium in every shape is injurious, even although combined with antimony in the way already referred to.

Dr. Graves, in commenting upon the subject, shows that hitherto down to the period at which he wrote, physicians have been too much in the habit of regarding cerebral symptoms in fever as the result of congestion, of inflammation, or of a derangement of the balance betwixt the venous and arterial systems; whereas many of these symptoms probably arise from causes

altogether different, and which, judging by the effects produced, bear a close resemblance to poisons. For example there is a common idea, that in cerebral affections, *dilatation* of the pupil only attends the state of coma or insensibility, and that, on the other hand, *contraction* of the pupil is always associated with a morbidly active state of the sensorium. This opinion is shown to be erroneous, as he thinks, both by attentive observation of the pupil in a succession of fever cases, and also by the phenomena met with by Dr. Peddie in some[1] cases of poisoning with a certain species of mushroom, where the pupils were seen much contracted during the stage of perfect insensibility, and widely dilated during the fury of delirium.

The whole of Dr. Graves' paper[2] deserves careful study; but, at present, we are concerned mainly with the conclusions which he seems to establish, on satisfactory grounds, that there are two analogous but different forms of cerebral excitement, severally indicated by contraction and by dilatation of the pupil, and that one of these is to be treated with belladonna or its congeners, the other with opium.

In the winter of 1853, Dr. Thomas Anderson, now, I believe, in India, was engaged in a series of experiments on the therapeutic action of belladonna, and having satisfied himself, by repeated clinical observation, of the soundness of the opinions entertained by Dr. Graves, he went a step farther and conceived the idea, that belladonna might perhaps be found beneficial in relieving the coma with contracted pupils, caused by poisoning with opium, and a favorable opportunity having soon occurred, he submitted his hypothesis to the test of experiment.[3] The patient had swallowed, in the course of thirty-six hours, two ounces of the solution of muriate of morphia for delirium tremens. He was in profound coma; his breathing stertorous, only four or five in the minute; and his pupils contracted to mere points. His pulse was excessively weak, and rather slow. It was quite impossible to rouse him. A drachm of Tincture of Belladonna, in water, was administered every half hour; and after the third

[1] *Edinburgh Medical and Surgical Journal*, January 1838.

[2] *Dublin Journal of Medical Science*, July 1838.

[3] *Ranking's Half-Yearly Abstract*, vol. xxii., p. 303.

dose, his pupils began to dilate. In four hours and a half from the beginning of this treatment, six drachms having been swallowed, a great improvement in his condition had taken place; the coma entirely gone; the respirations between twenty and twenty-five per minute; the pupils much dilated; the pulse nearly 120, and increased in strength; while the countenance, from being cold and pallid, had become flushed, and the whole body much warmer.

Dr. Anderson has also given us the details of another case, which he met with shortly afterwards, and treated in a similar manner, with the same satisfactory result.

He mentions a third case, obviously bearing very closely on the same question, in which a draught, containing one drachm of the ordinary solution of muriate of morphia, along with two drachms of tincture of henbane, failed entirely to induce sleep; whereas a much smaller dose, thirty-five drops, of the morphia alone, administered for several successive nights, invariably succeeded.

He also quotes an interesting and instructive case, from the *Association Medical Journal*, of a child, nine years old, who swallowed, with almost perfect impunity, two suppositories, each containing two grains of opium and two grains of extract of belladonna.

Another step in advance is taken by Dr. Garrod, who, in his opening lecture at University College, October 1854, hazarded the suggestion, that from the resemblance of the poisonous action of belladonna to *delirium tremens*, in which disease opium is an approved remedy, probably in poisoning by belladonna, opium may be found advantageous.

It is both interesting and important to advert, in connection with the foregoing facts and reasonings, to some experiments performed by Mr. T. Wharton Jones, in the course of his researches on the state of the blood and blood-vessels in inflammation. He found* that an artery in the web of a frog, under the microscope, was constricted in a varicose manner, almost to obliteration, on the application of a solution of sulphate of atropia, while at the same time, the blood in the corresponding capillaries

**Medical Times and Gazette*, January 1857.

and venous radicles was in a state bordering on stagnation. The blood was no more than flowing in the constricted artery, when he applied to it some of Battley's liquor opii sedativus. The effect was full dilatation of the artery, and brisk flow of blood. On the other hand, he remarked, that arteries which had been caused to dilate by the application of Battley's liquor opii to the web, may be made to contract again by washing that substance away and applying a solution of atropia instead.

These experiments are the more valuable in relation to our present topic, from having been obviously performed in following out a quite different line of research.

During the last year, I have frequently employed Dr. Alexander Wood's ingenious plan of treating neuralgia by the local injection of morphia; and it has occurred to me that, supposing these views, of which I have been giving some account, to be substantially correct, we now possess a very precise and satisfactory mode of treating the more serious cases of poisoning with opium on the one hand, or with belladonna and its congeners on the other. In fact, the more unpromising and desperate the case, the more convenient and valuable would be the mode at which I point of applying the antidote. Let the sufferer be quite incapable of swallowing, we can inject the remedy in any quantity we choose, and in any region of the body that may seem most appropriate. The powers of life may be ebbing fast, and absorption from the enfeebled stomach not to be counted on; we possess, in subcutaneous injection, a more direct, rapid, and trustworthy mode of conveying our remedy in the desired quantity into the circulating blood.

With these impressions, I performed a series of experiments in the course of last autumn upon the rabbit and cat, in the hope of being warranted by the result, in having recourse to a similar procedure in the first case of poisoning in the human subject which might appear suitable. These experiments were modified in various ways, so as to ascertain the truth, and avoid, as far as possible, sources of fallacy. The result, on the whole, was certainly not opposed to the anticipations formed; but the poisonous effects produced on the animals under experiment were not sufficiently marked and impressive to justify a very confident

opinion. There appear to be two chief sources of difficulty in drawing a conclusion from these or similar experiments. The first is, that the animals experimented on, particularly rabbits, seem to be but little susceptible of poisonous influence from any of the substances employed—morphia, atropia, and hyoscyamia; and the second source of difficulty is, that, for obvious reasons, we cannot appreciate the signs of cerebral disturbance so readily in animals as in the human subject. I have notes of all the experiments, written at the time, but think it useless to trouble the Society by reading the details.

It was my intention to repeat the same or similar experiments on the dog; but an opportunity of doing so had not occurred, when the following circumstances took place in the course of professional duty:—

I was sent for, on the 11th of February, 1858, to see a young woman, an inmate of the Blind Asylum, who was suffering very severely from neuralgia of the frontal nerve. She was anxious to have the part injected at once with morphia, having, on three previous occasions, received from that proceeding immediate and complete relief. There was this peculiarity in her case, however, that although the morphia removed the local pain, it never procured sleep, and always caused more or less derangement of the stomach. I resolved, therefore, to employ instead of it a solution of atropia, remembering how very warmly the internal use of belladonna in neuralgic affections has been lauded by many trustworthy observers. I accordingly injected ten minims of a solution of atropia, containing four grains in an ounce of water, or, in other words, about one twelfth of a grain of the medicine. She experienced immediate relief. Some mental confusion followed during several hours; but she felt altogether more comfortable than with the morphia, so that on a future occasion, mentioned in the sequel of this paper, she expressed a decided preference for the atropia.

On the 10th of March, I was requested to visit one of the men belonging to the same institution, who had been afflicted, for nearly two months, with sciatica of the right thigh and leg. His sufferings were very severe, almost without intermission, and aggravated by motion of the limb. I attempted to treat him,

in the first instance, constitutionally, with croton oil pills, quinine, and iodide of potassium; but as no material improvement took place, recourse was had to the local treatment by injection. Twenty minims of a solution of morphia, double the ordinary strength, were introduced over the sciatic nerve, where it emerges from below the pyriformis muscle. He experienced immediate and complete relief, which continued for eight or ten hours; but at the end of that time, the pain came back again as intense as before. The injection was repeated on the two following days, with benefit to this extent, that when lying quietly in bed he now had intervals of comparative freedom from acute suffering. The internal remedies were continued.

The disease, however, was very obstinate, and I determined to try the injection of atropia, which had answered so well in the case of the young woman already mentioned. With her, one-twelfth of a grain had been employed without causing unpleasant symptoms, although the seat of pain was in the forehead; and I therefore inferred that in the present instance, where the symptoms were so much more obstinate, and at so great a distance from the brain, I might safely use three times the quantity. I accordingly injected one-fourth of a grain of sulphate of atropia over the sciatic nerve. He experienced instantaneous relief, just as when the morphia had been used. This was at twelve o'clock. He said that he felt rather sick. I waited for some minutes, after which, as he made no further complaint, I left him in bed looking for a comfortable sleep, now that the pain was entirely removed. Upon reaching home, at half-past four, I found that a message had come sometime before, intimating that the blind man, on whom I had operated, was very ill, much excited, and unable to speak. I went immediately and found him very much as described; his countenance and head extremely flushed, with great distension of the veins; the breathing hurried; the pulse rapid and small; the skin hot and bathed in perspiration; he was exceedingly restless, his hands incessantly moving as if engaged in some of his ordinary handicraft duties at the Asylum; his hearing was evidently acute, as he attempted to reply when spoken to; but there was a remarkable dryness of the mouth and throat which prevented articulation, even if the mental dis-

turbance had been less complete. From the previously disorganised condition of both corneæ, the condition of his pupils could not be examined. It is perhaps worthy of notice, that the general surface of his body appeared to be very itchy, from his frequent endeavors to scratch it.

His condition was altogether alarming, and there were no indications of any tendency to improvement. Under these circumstances, being acquainted with no more promising plan of treatment, I had recourse, with some confidence, to the subcutaneous injection of morphia. I injected without delay, twenty-five minims of the double strength solution into the glutæal region of the opposite limb, which happened to lie next the edge of the bed. This was about five P.M. Almost immediately a decided change for the better was perceptible. He became considerably calmer, and swallowed a little water without much difficulty. I visited him again at half-past seven, and was glad to find that he had been sleeping quietly in one posture for an hour and a half. The remarkable flushing and congestion of the head and face had entirely disappeared. The pulse was fuller and less frequent; the skin soft and comfortable. He continued to sleep composedly until four next morning, when he awoke still rather confused; he again fell asleep, and awoke at six apparently quite well and free from mental disturbance. When I called in the course of the forenoon, I found him entirely relieved from pain and in good spirits, but quite unconscious, or at least oblivious, of all that had happened during the period of so much anxiety to those around him. He had been out of bed walking up and down his room quite delighted to find that he could now move about without any uneasiness in the affected limb, a feat which had not been possible for many weeks.

A few days after these occurrences, my former patient, in whose case I had used the atropia a month before, had a violent return of the tic in her brow, and was anxious to have the same treatment employed. I questioned her particularly as to her previous experience of the two remedies, and she gave a decided preference to the atropia. I used only five minims of a strong solution (gr. viii. ad ℥i.), or one-twelfth of a grain,—the same quantity as on the previous occasion. She was suffering intense

pain at the time, and, as usual, the relief was almost immediate; but in a few minutes, she moaned a good deal, and on being asked the reason, now that the pain was gone, replied, that she felt afraid, and saw a number of strange-looking people at the foot of her bed. Her pulse soon became frequent and rather small, and she had a considerable amount of subsultus and jerking of the hands. The quantity of atropia that had been injected was so small, that I had no hesitation in leaving her for a time; but I directed one of the other inmates of the Asylum to encourage her by sitting at the bedside, in case she continued sleepless and uncomfortable. This was at mid-day. I saw her again at 2.30. She was much in the same condition—restless and moaning, with a frequent pulse, and complaining, when questioned, of an unpleasant feeling of deadness or want of power in the lower extremities, and of dryness in the throat. With her own ready consent, I injected fifteen minims of the strong solution of morphia over the right shoulder-blade. She soon felt much more comfortable, and after the lapse of two hours, the pulse, from being small and rapid, had become full and soft, although still more frequent than natural. On the following day she was comparatively well, and quite free from pain. She mentioned very distinctly, that, immediately after the morphia was injected over the shoulder-blade, she had experienced complete relief from an unpleasant sensation in her head, and also from the feeling of deadness in her lower extremities already referred to.

I am quite satisfied, from what I observed in these two cases, although my description may have failed to convey the same impression to the members of the Society, that the injection of morphia had a powerful effect in modifying and controlling the poisonous influence of the atropia. I have had no opportunity in the human subject, of putting the converse doctrine regarding morphia to the test of experiment; but the evidence of facts already brought together in support of it seems to be so weighty, that I should confidently have recourse to the injection of atropia in a suitable case of poisoning with opium or any of its preparations. What do I mean by a suitable case? One in which the means of treatment now in use having been employed, the symptoms of poisoning still continue obstinate and alarming. As a

matter of course, the stomach ought to be emptied of any remaining poison as promptly as possible, by the ordinary methods, so as to prevent any more from passing into the circulation; for it is with that portion, and that only, which has already entered the blood, that the injected atropia is intended to grapple; and of course also, the quantity of the remedy employed should be regulated by the supposed quantity of poison and the urgency of the symptoms. The mode of treatment by injection has this great recommendation, that it can be repeated, if necessary, at intervals, in an accurate and precise manner, according to the effect produced, without the uncertainty which, under the circumstances of the patient, must attend administration by the mouth. It is desirable, however, to use no larger quantity of the antidote, itself an active poison, than seems necessary to neutralise or modify the more dangerous effects of the poison which the individual has swallowed. We must watch carefully for every symptom of improvement, and be satisfied if our remedy gives a decided turn to the case, by relieving the more alarming and urgent symptoms, without seeking to press the use of it unduly, as if we supposed that the Vis Medicatrix Naturæ had resigned her office.—*Edinburg Medical Journal.*

TOPICAL APPLICATIONS FOR CUTANEOUS DISEASES.

M. Gilbert has been quite active in his efforts to methodize and improve the treatment of these affections. He places first in astringent remedies, resinous and empyreumatic substances. Pure tar with lard, one part to three, is considered at this hospital, "the best resolvent for scaly eruptions, and a valuable desiccative in chronic eczematous and impetiginous eruptions." He prefers, however, glycerin, since its introduction into therapeutics, to the lard. "M. Gilbert applies the mixture, thickened with starch, in the form of pomade." The formula most used is: ℞. Glycerin f℥j; picis pur. f℥ss. M. Warm, and add powdered starch enough to make a consistent paste. "It relieves itching, heals excoriations, dries up secretions, and dispels redness," and by its employment many of these affections are quickly improved. He frequently employs also the oil of cade in a mixture called

huile cadée, being two parts of ol. morahuæ, and one of cade oil. "In the obstinate, pruriginous, papular, and eczematous eruptions of the anus and genitals, which are so often the source of despair both to the patient and the physician, M. Gibert has especial reason to congratulate himself on the employment of the oil of cade. He combines with it cold hip-baths, and the internal use of ℞. Acid. arsen. gr. j; aq. destill. Ojss. Make a hot solution, to be divided into six phials; half a phial to be taken every morning.—*Surg. Rep.*

ON THE VALUE OF BLOOD-LETTING IN SYMPTOMATIC FEVERS.

By T. L. Wright, M. D,

By the term symptomatic fever, I mean, of course, fever depending for its origin on some acute inflammation.

I do not mean to say anything new on this subject. Any thing new, on the value ot blood-letting in acute inflammatory affections, is not desirable. Medical science is very full, very exact, very satisfactory on this point.

The wretched and nauseating pretensions of *reformers*, ignorant of abuses, and of *progressionists*, unacquainted with the advancement of science in the ancient world, as with its condition at the present,—have so wrought upon the credulity of the vulgar, as to bring them to believe that there is no single disease that attacks a mortal which may not, in every instance, be cured by the proper application of the remedies of some upstart "system" of medicine. In other words, they are made to believe, practically, that death is not an inevitable necessity.

This idea becoming fixed, new "systems," and especially new medicines, are greedily sought out and confided in; for scientific medicine never did, and never pretended to, abolish the penalty of death.

All this is natural enough, and may be looked upon by any one with any pretension to philosophy, with an indifferent kind of contempt. For the world, in its broad acceptation, is ignorant, superstitious, ludicrously imbecile,—and especially in its ideas concerning health and disease, and the use and powers of remedies.

Now I complain of regular members of the medical profession being influenced by the clamors of the ignorant, and seduced by the pretensions of imposters, into admissions derogatory to the character of medical science, and inimical to the just claims of truth. Homeopathists, water doctors, and the entire host of pretenders, agree that to abstract blood is to "take away the life." It is true that our medical friends do not admit this. They deny it. Yet we see many of them assiduously hunting up "*substitutes*" for blood-letting! Some even adopt the "substitutes" presented to them by quacks. Others allow themselves to be misled by the falsehoods published in circulars printed by interested druggists, respecting the properties of certain medicines. While others, ashamed to desert the most ancient, honorable, and learned profession in the world, and too craven-hearted to withstand the idiotic clamors of the vulgar—on the "good Lord, good devil" principle, gravely profess to find an exact "substitute" for blood-letting, which yet is not blood-letting. They think it "best to howl with the wolves." They fall in with the *fashions*.

But shall we not have fashions? Unquestionably. Still, when all the music of the present and of the past, and of unnumbered generations of the future shall have utterly passed away, and not a vestige remain,—OLD HUNDRED will remain; and it will swell grandly from the throats of the wise and good, when the EARTH like a scroll shall pass away. That is exactly the difference between fashion and merit. It is the difference between the charlatan, the humbug, and the scientific physician. It is the difference between the "*substitute*" and blood-letting in inflammatory diseases.

Let us now look at this matter of substitution.

In the first place there is no such thing in nature—strictly speaking, as substitution. All things have their legitimate spheres and specific influences. The idea of exact substitution involves the absurdity of the existence of some things which can without loss or injury, be dispensed with—an unnecessary creation. Wherever one thing absolutely supplies the place of another, it will be found that these seemingly different things, are really *identical* things. This is seen in figures.

But the beauty and sweetness of medical substitutes consist in the sublime fact that the "substitutes" possess—mark you—all the *beneficial* properties, without any of the *dangerous* ones, of the agent for which they are substituted! Now when I hear a grave doctor talk about the substitute for blood-letting in that kind of a strain,—knowing as I do, and as every doctor should do, that the powers of blood-letting which may result calamitously if it is improperly employed, are the identical ones that are beneficial when rightly used. I begin to listen for the next sound; half surmising that it will prove to be that one which was so grateful to the ears of Sancho Panza,—even the voice of his beloved "Dapple."

To examine properly the nature and powers of substitutes for blood-letting in acute inflammations, let us consider common *Pneumonia*, with or without *Pleuritis*, as the conveniences of illustration demand, as a sample of the characteristics of inflammation, and of the influence of blood-letting upon it. I do not propose to describe the disease nor its treatment in detail. I shall speak only to the points I raise. I choose pneumonia because it is the disease in which *veratrum viride* is supposed to be particularly efficacious as a substitute for venesection.

In all acute inflammatory affections the powers of the system are elevated, as a general principle, above the natural standard. The exception is when some vital part, as the delicate and highly complicated mucus membrane, is inflamed. And then the disease has a tendency to depression, on the principle of an extensive injury to the fibrils of the nervous system. But I will not dwell upon exceptions. In pneumonia—an affection of parenchematous structure—this injurious shock does not obtain. The powers and resiliency of the system are elevated. There is active congestion of a large portion of lung. This is necessarily attended with a withdrawal of that portion of the lung from its duty in assisting in the proper aeration of the blood. So that, while in health the entire lungs are called into action to perform the function of respiration upon the blood in its natural circulation and in a healthy condition, in pneumonia a portion of the lung is quiescent and useless, while the circulation is greatly increased. This produces "head symptoms;" and, in addition, a poisonous

state of the blood, such as acts upon the nervous sensibilities in a way inimical to the healthy action of remedies;—not to mention the proper action of the secretory functions.

What does blood-letting effect in a condition of this kind? I will look at its effects *seriatim;* and we will see, thence, how it is, that any internal remedy *can not possibly* occupy the position of "substitute" for blood-letting.

1st. The abstraction of blood restores the equilibrium between the amount of blood in circulation and the air respired (which had been impaired by the inactivity of a portion of the lungs) by reducing the *amount* of the circulating medium. It also relieves, by restoring the just relationship between the circulation and respiration, the oppression of the nervous system, depending upon unaerated or badly aerated blood, circulating in the arterial capillaries. In this way it awakens the natural sensibilities of the system,—thus promoting the effects of other remedies.

Will viratrum or digitalis as effectually restore this equilibrium? Veratrum is powerless in fulfilling this important indication—an indication that should *never* be overlooked in any serious case of pneumonia. I will not dwell upon the bad complications that are liable to ensue if it is neglected.

2nd. Does not every physician know that vensection is infinitely the most powerful measure that can be employed in promoting absorption? It is an error founded upon unpardonable ignorance to suppose, (as I have heard it contended), that pneumonia is to be got rid of by expectoration. Loosening the cough is not intended to enable the patient to "spit up the disease." It matters little whether veratrum renders expectoration easy or not, if it will do no more as a substitute for bleeding, in the disease under consideration. Proper venesection will also "loosen the cough;" but instead of making expectoration copious, it diminishes its quantity. It does this by so emptying the blood vessels, and relieving the oppressed powers of the nervous system, that the accumulated matter (the blood and lymph congesting the lungs) reënters the circulation—back again—the same way it came out of it. And thus the oppression of the lungs is relieved; the necessity of copious expectoration fades away, and the affected part *speedily* begins to resume—if proper adjuvant treatment is employed—its wonted functions.

3d. Will veratrum thus fill the place of blood-letting in removing the inflammation and congestion of *pneumonia?* The pretention is perfectly idle.

In symptomatic fevers, bleeding promotes the operation of medicines. Says Hoffman: "*Post venesectionem saepe excretiones salutares sanguinis, imo alvi, sudoris, urinæ vacuationes, melius et liberius quam ante eam succedunt.*" Critical discharges are more readily and freely brought about, either in the form of evacuations from the bowels, or of the secretions of the kidneys or skin, subsequently to venesection, than they are before it has been resorted to. This especially obtains in pneumonia, in consequence of the absorption of medicines being promoted by the remedy, and because the nervous system is not merely relieved temporarily from the influence of fever, but because also, it is permanently relieved from the poisonous oppression of unaerated blood,—a relief, that, in the nature of things, veratrum is inadequate so fully to afford.

As my article threatens to become lengthy, I will not pursue the advantages of blood-letting in pneumonia in all their details. I am not disposed to deny to veratrum certain useful properties in the treatment of inflammation. But that it is *ever* a substitute for blood-letting I most emphatically deny. In severe cases of pneumonia we have more blood than we want. It is in our way, and in the way of convalescence. We want to get rid of it; and if there is any boon that we should thank providence for in such circumstances, it is the knowledge and experience which directs blood-letting.

As these reflections occur to me, it can not be wondered at that I shall pronounce any man who professes to have found a "substitute" for venesection in inflammatory affections, a libeler on the character of medical science,—an impudent pretender, alike ignorant of what medical science is, and of what it should be. That man, of course, admits himself to be incompetent to use the lancet advantageously—a sure indication of his incapacity; and no argument against blood-letting. It is only one man in a thousand that is fit to become a reformer. A vast majority would do better to believe nothing that is new than to disbelieve anything that is old.

I will add a remark or two upon the reasons that seems to have influenced another portion of medical men in sustaining (practically) the falsehood against medical science, that the practice of bleeding in pneumonia should be avoided if a "substitute" can be found for it.

It is well known that at a distance below the earth's surface, so small that we can travel it on a railroad any day in thirty minutes, we arrive at a degree of heat that reduces all things to a state of fusion. The crust of the earth is thinner in proportion to the earth's size, than is the shell of an egg. It may justly be supposed, I think, that in the constant oscillation—the bending and yielding of the crust of the earth—as the globe whirls through the ether of the universe, gases inimical to the health of the animal structure should from time to time escape; and so modify and deprave, gradually, the human constitution, to materially affect the features of ordinary diseases. Certain it is, the causes of cholera in its last visitation, whatever they may have been, were seen to affect the constitution of man, and the cause of that disease, before that scourge itself appeared. Bilious fevers gave place to "congestive fevers." The cholera came. It was accompanied and succeeded by typhoid fever, and typhoid diseases in all their forms. For a year or two the constitutions of men were fearfully depraved. Let the slightest sickness intervene, and we had the hard and brown tongue, and general putrescency of typhoid. And it was not until a wise providence dried up all the ponds and wet places by a season of reasonable drought, and removed all the poisonous effluvia in the air, by precipitating the moisture of the atmosphere with the severity of two intensely cold winters, that we were brought to observe the returning presence of the phlogistic diathesis, which is now becoming apparent.

But whatever were the causes of this unusual depravation of the human constitution, they were *infections*, and, at first operating upon the nervous system, insidiously, they at length so destroyed the healthy constitution of the blood as to induce a gradual and increasing cacoplasis. The result was, that upon some sudden exciting cause the constitution *suddenly* succumbed, and a spectacle of putrescent blood and crumbling solids was presented for cure.

Pneumonia, or any other inflammation affecting a constitution in this condition, was not a true case of symptomatic fever. The *inflammation* might be symptomatic enough. And it generally was so. But the fever was ideopatic; and of a grade below the excitement of ordinary health. The excitement partook more of the nature of a persistent and excessive nervous erethism, induced by a despairing effort of the constitution to unload itself of matter prejudicial to life.

Now every doctor knows that an inflammation existing in such a constitution can never be brought to a healthy termination, unless the powers of the system are *raised;*—unless not only the nervous system, but the blood also, is braced up and enriched. It takes a good deal of strength in any system to bring an extensive inflammation to a favorable issue. The tendency all this time was to gangrene or ulceration. Indeed, so badly was nutrition performed, that, in cases of fever unattended at first with structural lesion, ulceration was very apt to be found speedily progressing in some part of the body. Not only was the blood incapable of healing ulcers, but the flesh and tissues that already existed had been so badly and imperfectly constructed out of blood slowly degenerated, that they crumbled away in innumerable ulcers.

Here was the condition in which blood-letting was found injurious. "The patient would sink." Certainly he would sink. Here, of course, we want stimulants and tonics. Blood-letting never was admissable in cases of this kind; and the talk of a "substitute" for it is ridiculous.

In treating inflammatory affection, it is proper to find if the affection is possessed of an identity of its own; or whether it is an excrescence upon some other condition or disease. When we find it a simple inflammation, we will find it always attended by an elevation of the powers of life, no matter how feeble the constitution may be in health. We cure such cases by reducing the excitement and *tolerance* of the system cautiously down to the healthy standard. Any impression which reduces the system permanently *below* this standard is a bad one, and always makes a bad case.—*Lancet and Observer.*

POST-MORTEM APPEARANCES IN ELEVEN CASES OF CHOLERA INFANTUM.

By Dr. J. Lewis Smith, of New York.

The following is a résumé of the post-mortem appearances :

Stomach.—In six cases not examined; in the remaining five it seemed healthy. This fact is the more interesting when we consider that some eminent writers have asserted that the stomach presents the lesions of inflammation, and recollect that one prominent and obstinate symptom is referable to this organ. I find, however, from my notes, that vomiting was not present during the period of treatment at the dispensary in forty-six patients out of an aggregate of one hundred and thirty-three; and in only twenty-four of those who suffered from it did it occur at the commencement of the disease.

Small intestines.—In three cases these appeared natural; in four they were moderately or slightly injected in places; in the remaining four the records state that the jejunum seemed healthy, but the ileum was more or less inflamed; continuously so in only one.

Ascending colon.—In two cases it was not examined; in two it presented the usual healthy appearance; it five it was vascular in patches, and in the remaining two it was uniformly injected.

Descending colon.—This, in all the cases, was the principal seat of the inflammation, presenting a continued red surface. In four cases, the records state that the mucous membrane was thickened; it may have been in others. Follicular ulceration was present in five cases. In two or three instances, on tracing the intestines into the pelves, it was noticed that the signs of inflammation gradually faded.

Liver.—This organ was inspected in only four of the examinations; in three of these it is stated that there was no appreciable alteration in its condition; in the other case it was also natural, unless congested.

We may instance the following particulars, in reference to these cases, as especially important:

1st. That the stomach, though so irritable in the disease, and the liver, in the few instances in which it was examined, did not present any notable alteration from the healthy state.

2d. That in all the cases there was well marked intestinal inflammation. Two died when only five days sick, and yet in both the descending colon presented the inflammatory lesion in a high degree.

3d. That the inflammation was not confined to the mucous follicles, as it has been stated to be by some writers; but it extended in patches over the mucous surface.

4th. The portion of the intestinal tract in which the inflammation was most intense, was in all the patients the descending colon, and colitis was the only lesion invariably present.—*Virginia Med. Sur. Jour.*

QUININE IN TYPHOID FEVER

We have had the opportunity of seeing a case of typhoid fever at St. George's Hospital, under Dr. Fuller's care, which was treated by quinine. The patient was a little boy, eight years old, who was admitted with well-marked symptoms, but whose previous history was imperfect. He had a very distinct mulberry rash over his body. Ten grains of quinine were ordered the first day every two hours, and the change produced in the general symptoms was positively striking; the pulse came down, his skin was cool and moist, diarrhœa ceased, and his tongue was moist. As this was the case, Dr. Fuller did not desire to push the large doses (he had taken three only,) but continued the medicine in two-grain doses three times a day, with four ounces of wine, and the little fellow is going on well. This is the third case in which this plan of treatment has proved successful in Dr. Fuller's hands; it has been employed elsewhere with great benefit.—*Lancet.*

SURGERY.

THE PRESENT ASPECT OF CONSERVATIVE SURGERY AND THE CHLOROFORM QUESTION

By F. C. Skey, Esq., F.R.S., F.R.C.S., Surgeon to St. Bartholomew's Hospital.

Gentlemen: I don't think I can better begin a Course of Clinical Lectures, which it is my duty to deliver in this theatre

during the new year, than by making some few remarks in reference to what is called in the general *parlance* of the day, "Conservative Surgery." By conservative, or curative, surgery as applied, in the first place to injuries of joints or limbs, I wish to signify that practice in surgery which, in the hands of some one surgeon, leads to a conservation or saving of a limb or joint, as contra-distinguished from another practice, which, in an entirely similar case, sacrifices the same joint or limb by amputation. By "conservation," or some such term, we properly signify the recognition of the power of Nature to repair what may appear otherwise beyond repair, and it obviously implies on the part of the surgeon a deeper knowledge or experience of the subtle, yet marvellous powers of Nature, engaged in such processes, as well as an instinctive recognition of these processes and the point where Nature is assisting us, and proving herself a true *vis medicatrix;* or where, overborne by sundry morbid agencies, Art, even at any cost of mutilation must come to the rescue.

And this "conservative" surgery is no mean or little thing; it engages the moral feelings as well as an intellectual analysis of the surgical facts that have previously come under your notice —for I now take it that you will all and each of you be one day or another embarked in surgical practice—both, mind you, are indispensable, the moral feelings and the intellect, nay more, we must in a measure, make each case our own, and sympathise with our patients, if we wish to master each case presented to us.

A man properly imbued with the idea of curative or conservative surgery must calmly study Nature, he must forget self-interest. Oh! do not for mere *eclat* of operations, as do some, commit some crime—I was almost inclined to say, do not do any thing to your patient, be he rich or poor, that you would not after the gravest study wish to be done to yourself in similar circumstances! That, indeed, must be your guiding rule in all your medical intercourse with the sick, but more particularly in this department. Remember if you save a man's arm, to him it is almost equivalent to his life, as it is the means by which he lives.

But you are young, and you say, "Why all this, the surgical profession is surely an honorable profession?" and you read the

journals, and "we are all honorable men!" Be it so—that is drawing it very mild at any rate. Mark! I make no imputation against the great operators, but while human strength is mixed up with human weakness, and while the line is not well defined in surgical operations where *esprit de corps* or mere surgical *eclat* trespasses on thorough conscientiousness or honesty, while error is likely to prevail, then it is your duty to keep yourselves properly instructed in what the lessons of experience everywhere are teaching us, and to what principles of surgery the "finger-posts" of statistics are pointing.

You may depend on it that Nature has a disposition to effect singular cures if we only did not thwart her designs. Nature is usually at work building up healthy tissues. I believe this is evident in a large majority of surgical cases. Look at a broken bone uniting. Sometimes, no doubt, there was side by side with such healthy physiological action a certain pathological or diseased action or element, but let us take care that we do not encourage the latter in place of the former; say that we bleed in a fever where we ought to give wine, then the disease gets a head; or say that a patient dies of amputation or resection, where such operation was unnecessary.

If you believe with me that there is this tendency to mistake many things in Nature's work for something pathological; that from *esprit de corps* we take for granted Nature is going pathologically wrong as often or oftener than she goes physiologically right, yet if I can show you this is an error, surely there must be something in our conservative surgery that deserves more than a mere passing notice.

Let us take care that this so-called *esprit de corps* does not alienate the public too much from us. Bacon made this remark a very long time ago. It is as true now as it was then.

All very well! But what evidence can I bring that Nature, as we find her in hospitals, is not always going wrong? I now remember the wards of St. Bartholomew's Hospital for a period of about forty years, and if I look back at amputations, for instance, I find they are diminishing in number year by year. What is the secret of this? I'll tell you. Nature now cures hundreds of cases that were formerly mutilated and amputated.

Do you think we have in this department but reached the goal, that we have nothing like steel or cod-liver oil in strumous cases, for instance, totally unknown forty years ago, yet to be discovered? Is chloroform nothing?

But what a melancholy thing it is that some surgeons still adhere to old routine. You will be astonished, perhaps, that there is no standard practice in our sixteen or eighteen London hospitals. The public does not know that even with this *esprit de corps*—of which we make so much ado—that the leg which is saved in hospital A is cut off and few questions asked at hospital B, C, D; ay! we're "all honorable men," saved perhaps at hospital E, or put in orthopœdic training, but cut off at F, G, H, I, &c. Is it not our duty to society to save limbs, to cure aneurisms without cutting operations, to take advantage of chloroform, &c.? To society did I say? Here a man feels the blighting influence of this so-called *esprit de corps;* he is out voted in consultation, and by apparently wise heads; he must not infringe old routine or the stereotyped rules of years! But I tell you, and you may rely on what I say, our first duty is to society, though it may ill understand us; our next, ay, *longo intervallo*, our next duty is to our Profession!

I am sorry to say, too, that the more remote the distance from London the worse do things appear to become, so firmly rooted do old prejudices keep their hold where once they have been implanted. In one small provincial hospital, with forty surgical beds, I have recently known there to have been more mutilations or amputations in one year than there were in the same year (of twelve months) in all our 340 surgical beds in St. Bartholomew's. The fear of using chloroform, another error, adds to the horror of such old-world wisdom.

All professions, perhaps even to the judges on the bench, are "infirm of purpose," if it comes to be a matter of common sense *versus* some old precedent or rule, in other words, a matter of *esprit de corps*. Still even this latter must occasionally yield to the public learning things themselves.

There is no large or capital operation in surgery that is not undergoing a change in the direction of greater simplicity. Where are our pullies in recent dislocations of the hip? What

improvement ever equalled that of the introduction of chloro form, of anæsthetics? Pain abolished at one glorious sweep; you know that even within your own memory, let cavillers say what they please, it has become the recognized practice of all good surgeons in America, Asia, Europe, to administer chloroform. Let no silly errors persuade you to the contrary! Again, look at injuries of the skull and the use of the trephine, where formerly it was used on every occasion (realising the lines to Sidrophel,—

> "He used trephining of the skull
> As often as the moon's at full,"

where formerly we were told to anticipate symptoms), now the trephine is scarcely used at all, in Germany it is entirely condemned.

Let us take lithotomy operations again, and compare them with lithotrity. Yet though the appliances and means of lithotomy are more brilliant or improved, (I now speak of the lateral operation), the deaths are at least 30 per cent.; those of lithotrity, which is superseding it in private practice, are only 5 per cent.

Does the conscientious surgeon treat surgical aneurism now in the same manner that surgeons of the last century did? No! We have been compelled by the facts brought forward by the Dublin surgeons to adopt the mode of cure by compression; it is not so brilliant or full of *eclat*, yet it is eminently conservative and saves many valuable lives. Some London men say they like a cut at their cases, but the short and best cut of a case of aneurism is to cure it, and that is effected by pressure; the amputations and deaths after ligature, even for popliteal aneurism, were something terrible and enormous a few years ago; now we hear of internal aneurisms cured by specific methods!

Old dislocations are now reduced in people of advanced years, even at sixty, though Sir A. Cooper advised the opposite, and in the manipulation of other cases under chloroform it is marvellous what may be done. These are the cases that will make or mar you in practice.

As to the special subject of saving limbs after surgical injury, such as compound fractures with and without injury of vessels, I

wrote a paper in 1855. I am every day more and more convinced of the force of the truths I then enunciated; I will not go with much detail into it.

If a limb be cold or mortified and vessels impaired there can, of course, be no second opinion as to the propriety of amputation, but I take cases on the confines of this extreme condition, and I ask myself very often, shall I amputate or not? Fifteen years ago I had a great deal of night surgery at this hospital, I may say I lived next door, and I have had many a half hour's walk up and down the quadrangle—half hours of agony, thinking shall I amputate or not amputate? A hand and forearm of a patient is sometimes fractured by machinery, by a printing press at night—the old rule, I now firmly believe "more honored in the breach" than in any, even at least slavish observance, was always to amputate, and mind, in doing that, you take away the working man's right hand perhaps; now that is a serious matter! We infringed the rule, and the infringements or errors of old rules taught us a great deal. I was every year more and more fortified in my opinion, now fully established, that you are not called upon to amputate in almost any injnry of forearm and hand. Nature will repair the mischief herself!

Take again diseases of joints, and what do we find? What has the last ten years taught us? That you cannot have anchylosis without removal of the encrusting cartilage of such parts as the head of the femur or humerus, &c. This is not disease, it is Nature's own curative surgery; yet how are we every other day frightened at the words "ulceration of cartilages." Have you never seen this part finely injected with size and vermillion? If you have, you would see a beautiful ring of granulations marking out the process of absorption, and thus, *pari passu*, marking out Nature's conservative surgery. Yet how many dozens of knees do we see amputated, or ankles removed, because we mistake a healthy reparative process, tedious it may be, for a diseased state.

But I come back to the subject of compound comminuted fractures. I do not like to lead the advanced guard of ultra-conservatism. I see a good deal of small surgery, but though heterodox in a 'clinical,' I wish to teach you leading clinical

principles, not small surgery. But I will give you a case; there is nothing like a case—it is a sort of diagram. A man was brought in, Nov. 5, with a very bad and formidable laceration of the forearm, the radius comminuted, the extensor muscles scooped away, the intersseous ligament and so-called interosseous artery (it's not an interosseous artery at all, by the way,) all injured, he had a Guy Fawkes explosion, burning and destroying his arm. What was to be done? The students came crowding down for an operation; he had some amount of extension and flexion in the forearm. Well, I simply cut away all the jagged parts, I placed a splint over the front of the forearm; he has now a useful arm; but mind, if he had not had extension and flexion it would be useless to try to save the parts. Here "antagonism," whatever it be in the moral or Guy Fawkes world, is everything to be desired. He had his supinators, else I would have amputated: it would never do to leave him a hand all flexors, bent like a bird's claw.

You have heard also, no doubt (any of you industriously reading up for the college, at least,) of "primary" and "secondery" amputations. Well, there has been a great deal written on this subject, and, as it is made to bear on conservative surgery, it is good in its essence, but it is impracticable. I have often explained why I don't believe in it. It may answer on the field of battle, where the surgeon is here in a trench to-day, and ten miles off to-morrow. I believe it is ridiculous in civil hospitals, for I say if a man is not operated on till the termination of six hours, why not give him 24, ay, and 48 hours. In such cases I would say, in one word—do not take off limbs too soon, watch the case, watch it, that's the secret. I fought a case here the other day; I said give him 24 hours, and then three days: I will not tell you the result—but that is the principle. I want you now to observe for yourselves, and take this with you, that in the last ten years there is happily growing up more tenderness and sympathy for patients; there is more humanity amongst the true and great surgeons.

If we felt for patients more it would be no harm. I had a joke with Sir B. Brodie a little while ago. He went out of town somewhere and happening to meet with an injury dislocated his

humerus. "I am so glad, Sir Benjamin." I said to him, "as the Fates would have it so, that it occurred to such a good observer; you can now sympathize with patients and tell us all about it; I am glad, at any rate, it was no worse." He laughed. "I agree with you," he said, "we do not sympathize enough with our patients. I don't exactly see the force of your congratulation, at least in your way, for I assure you it was horribly painful."

I would say to you, in conclusion, it is your duty, it is your mission, and there is no nobler one, to save limbs and to save life in every possible manner you can; the sooner you forget mere personal *eclat* the better. Take care that much of the *esprit de corps* I speak of is not pride and self-esteem.

You may rely on it, considering our increasing knowledge of therapeutics, that we have not yet tested Nature's own conservative surgery enough, and that we deprive Nature of much of the credit that is justly her due.—*Montreal Medical Chronicle.*

THE UTERUS.

By Tyler Smith.

THE uterus is in relation with the cerebral, spinal, and ganglionic divisions of the nervous system, and possesses properties derived from each of these sources of motor power.

In the first place, let us consider the relation of the cerebral system to uterine motor action, as seen in the influence of volition and emotion.

The uterus is withdrawn from the direct influence of volition. The will has no direct power either to contract or to dilate this organ. Labour may take place when cerebral paralysis exists, the will being entirely in abeyance, but the uterine movements dependent on reflex action and peristaltic action remaining perfect. But, though not exerting any direct influence, volition may affect the uterus indirectly. In certain cases of uterine inertia, when the contractions of the uterus have entirely ceased voluntary efforts are sometimes sufficient to reproduce uterine contractions. Efforts at expiration, with the glottis closed, cause the abdominal muscles to compress the uterus mechanically, and this compression stimulates the uterus in the same way

as manual irritation of the organ. What is called in other organs, consensual action, may also probably be excited in the uterus, to some degree, by volition. Violent voluntary action quickens the action of the heart, and the voluntary contraction of the internal rectus muscle contracts the iris, though both the heart and the iris are removed from the direct action of volition. In a similar manner, the uterus, during parturition, is probably affected by the intense efforts at expiration and bearing down, which accompany the pains of labour.

A very powerful influence may be exerted upon the uterus by emotion. A fright, or any violent mental disturbance, may bring on labour prematurely, or produce abortion. During labour, any sudden emotion of the mind may increase or arrest uterine action. The different effects of hope or despair on the commencement, progress, and termination of labour, have frequently been remarked. Emotion often plays the part of Tantalus to the accoucheur. His entrance into the lying-in room may arrest the pains of labour for a time, through the influence of emotion; but if he should leave the house, they as often return with increased vigour, and terminate the labour abruptly in his absence. After delivery, the maternal emotion exerted by the sight of the infant causes the uterus to contract in a remarkable manner. Emotional, like voluntary action, is psychical in its nature, and originates in the cerebrum; but it acts upon the uterus and other parts through the spinal marrow, the great organ of physical motion. This is evident from the fact that emotional movements may occur in parts which are entirely paralysed to cerebral voluntary motion.

Let us now refer to the forms of uterine action depending upon the spinal marrow, a subject which did not admit of comprehension before the beautiful discovery of the spinal or disastatlic system by Dr. Marshall Hall.

The reflex spinal or diastaltic action of the uterus is excited in various modes; and it is upon this form of contraction, aided by peristaltic action, and the extra-uterine reflex actions excited during the process, that natural parturition essentially depends. Contraction of the uterus, of a reflex or diastaltic kind, may be

excited by irritation of the mammæ, as in the act of suckling the infant; by the impression of cold upon the vulva or abdominal surface; by irritation of the rectum, as by a stimulating enema; by gastric irritation, as in drinking a gulp of cold water, or swallowing a piece of ice; by ovarian excitement, as in the occurrence of abortion from the menstrual nidus; by irritation of the vagina or pressure on the perineum; and by irritation of the os and cervix uteri. These facts supply the proof that the uterus is endowed with reflex action, and that the motor nerves of the uterus are in relation with the mammary, pubic, rectal, pneumo-gastric, ovarian, and vaginal nerves, and the nerves of the os and cervix uteri, as incident excitor nerves. There can be no doubt that in an organ thus subject to reflex action, its own nerves are excitors, and that in all contractions of the uterus excited by irritation of the internal surface of the uterus or of the os and cervix during the passage of the fœtus, the uterine actions are both reflex and peristaltic. That the internal surface of the uterus possesses incident spinal nerves, is proved by the occurrence of vomiting, etc., from uterine irritation. There is indeed no instance of a mucous surface wanting the power of exciting reflex action in other parts of the body. It is a question if any pure spinal fibres reach or proceed from the uterus, unmixed with fibres from the ganglionic. This admixture produces a curious effect upon the reflex contractions of the organ. If we irritate the conjunctiva with a feather, the orbicularis muscle contracts instantly. If we tickle the fauces, efforts at vomiting are immediately produced. But in the case of the uterus, contraction does not follow upon the irritation in so sudden a manner. I have sometimes, in cases of alarming hæmorrhage, had my hand in the uterus for a considerable time, and have carefully watched the influence of reflex stimuli upon the uterus. If, while the uterus remains flaccid, cold water is sprinkled upon the face, the uterus does not act at once, but after an interval of half a minute to a minute, or even longer, the organ slowly begins to contract, reaches its acme by degrees, and as slowly relaxes. The same thing happens if, while the hand remains *in utero*, cold or iced water be injected into the cavity of the organ.

As a motor organ, the uterus stands alone in many respects. Unlike the rectum and bladder, it is not directly influenced by volition; and, unlike the heart, it is extremely prone to reflex action. It more nearly resembles the œsophagus, which is uninfluenced by the will, but is endowed with reflex motion and peristaltic action. It differs, however, from the œsophagus in the number of excitor surfaces with which the spinal system places it in relation. There is no other organ—not even the stomach—which can be excited by so many distinct organs, or which acts as such an extensive excitor of motor action in other parts, both in the impregnated and unimpregnated states, as the uterus.

Besides the reflex action of the spinal marrow, and its system of excitor and motor nerves, there is the direct action of the spinal centre to be considered, though this form of spinal action does not play the important part assigned to it by Serres, Brachet, and Segalas. In what is termed direct or centric spinal action, the spinal centre with its motor nerves are concerned, to the exclusion of the incident or excitor nerves. Various instances of centric spinal action may be given. Thus, ergotine passing into the blood, affects the spinal centre, and its effects reach the uterus by its motor nerves. Other oxytocic agents such as strychnia, carbonic acid, savin, aloes, alcohol, the biborate of soda, and probably ipecacuanha, act in a similar manner. The state of the circulation affects the spinal centre in a very distinct manner. It is well known that there is one form of puerperal convulsion depending upon hæmorrhage, where the heart and great vessels have been nearly emptied of blood, and another caused by fulness of circulation. The convulsion probably depends greatly upon the influence of deficiency or excess of blood in the vessels of the nervous centres. Want or excess of blood, or materies morbi in the circulation, act, then, as direct stimuli to the spinal centre, and in this way the state of the circulation affects the uterus during labour. The uterus acts with increased force when the circulation is either plethoric or anæmic; though in the latter case, exhaustion of its nervous energy quickly ensues.

We now come to the consideration of the peristaltic or ganglionic motor actions of the uterus.

When any part of a muscular organ, supplied in whole or in part by the ganglionic system of nerves, is irritated, the contraction which ensues generally spreads in a vermicular manner to a distance from the point of irritation, and continues for some time after the exciting cause is removed. This is called peristaltic motion or action. The uterus is eminently endowed with this peristaltic form of contraction. When one point of the uterus is stimulated, through the abdominal parietes, or by the introduction of the hand into the uterus, the contraction excited extends to the whole organ. Harvey described this peristaltic action of the uterus in the doe. William Hunter saw it in the cat and the rabbit. Muller observed it in the uterus of the rat and the oviduct of the turtle; and I have seen it in the uterus of the guinea-pig and other animals. The heart, œsophagus, and intestine may be excited to contraction after death; and I have seen the uterus and vagina of the rabbit contract rhythmically, when irritated, for several hours after the cessation of respiration. Many cases are on record in which women have died undelivered, but the child has been expelled spontaneously after death. In one case, a woman dying during labour was placed in a coffin, and the fœtus was found the next day perfectly expelled. This *post-mortem* parturition most generally depends either upon peristaltic action, commencing after the occurrence of somatic death, or upon the rigor mortis affecting the uterus. It is well known that the rigor mortis affects the other involuntary muscles, and especially the heart, which is contracted by this influence to such an extent as to empty the ventricles, and even to simulate concentric hypertrophy. Cases are related in which the fœtus has apparently been expelled some days after the death of the mother by the gaseous distension of the abdomen; but these are different from cases occurring shortly after death, and before decomposition has set in. In the living subject, the peristaltic action of the uterus is the basis of the other uterine actions. In natural labour it is combined with reflex uterine action, and with various forms of extra-uterine action; but, under certain circumstances, it appears able to effect the expulsion of the child without other aid. In paraplegia from disease of the lower part of the spinal marrow, or in animals reduced to the same state by experiment,

the peristaltic action is the chief power remaining to the uterus. In such case, delivery has been effected in an imperfect manner by the peristaltic action of the uterus, or the application of galvanism to the organ. It is not, however, known how much of the spinal marrow must be destroyed before the reflex or diastaltic actions of the uterus cease.

[We have made the above selection, not only on account of the intrinsic value of the explanations given of uterine action, but, because of its bearing upon the interesting case of fœtal expulsion, reported in the first No. of this Journal, by our esteemed collaborator Dr. B. F. Fessenden. It will be seen that "many cases are on record in which *post-mortem* parturition has taken place," and that the phenomenon can be easily explained on philosophical principles.—*Editor.*]

MIDWIFERY.

ON THE USE OF ALCOHOLIC STIMULANTS IN THE TREATMENT OF UTERINE HÆMORRHAGE AFTER DELIVERY.

To The Editor of the Lancet.

Sir:—My experience as an accoucher is derived from private practice only, and I am not able to write upon the subject of the treatment of this very serious disease with the authority which some men might assume. But upwards of thirty years' practice has afforded me a fair share of opportunity for observation, and I have no hesitation in saying that in every case of uterine hæmorrhage after delivery which I have attended, not only have I used alcoholic stimulus with advantage whenever the vital powers have been unduly depressed by loss of blood, but that I have in some cases had every reason to believe that without it they would have proved fatal. But I have not rested satisfied with using, in addition to the exhibition of stimulants, what Mr. Higginbottom calls "the customary local applications"—that is, I suppose, cold affusion with pressure; I have, in every case *emptied the uterus* with the hand. Bearing in mind that, after delivery, hæmorrhage is significant of an unclosed state of the uterine vessels from want of contraction of the organ, and coming

to the conclusion that it is unable to contract from a twofold cause,—viz: primarily, from its containing something over which it will not close; and secondarily, from the patient not possessing in consequence of the loss of blood, sufficient vital power to produce contractility in it,—I have combined these two indications of treatment, by giving, whenever it could be procured, hot brandy and water (which I consider more stimulating than brandy alone,) and by cleaning out the uterus by the introduction of the hand high up, as far as the upper pyriform extremity, making external pressure while it is being gradually withdrawn. When I say that the uterus is prevented contracting, owing to its containing something over which it would not close, I do not mean a substance, such as the placenta, which of course every physician would at once remove, but clots of blood; and I believe that a very small clot will suffice, in some cases, to prevent contraction, especially when the contractile power of the organ is diminished by loss of vital power from sudden hæmorrhage; and and I will give two cases in point.

One, a married woman, had, on two previous occasions after delivery, hæmorrhage. I was out when the summons to attend her came, but my assistant went immediately to her. On my return, however, I hurried down to her house, recollecting her disposition to hæmorrhage. A few doors from her house I met my assistant. He told me there had been smart flooding after the delivery, that he had removed the placenta, and had left the uterus well contracted. While we were standing to have this communication, the husband ran up hastily, and said his wife was dying. We found her faint and gasping; a stream of blood running down the side of the bed. Giving her some brandy, I introduced my hand and forearm into the uterus. I found a slight contraction had taken place, about the distance of one-third from the neck; above this it was fully dilated and filled with blood.

I have reason to believe in this case, that irregular contraction took place in the lower part of the organ, after the removal of the placenta, but that the upper part refused to close over some clots which were left. I kept my hand in the uterus, touching the upper extremity with my fingers, until I felt contraction taking place, then gradually withdrew it, bringing down the clotted

blood it contained; external pressure was made, and hot brandy-and-water given at intervals of half a minute simultaneously; a compress over the region was secured by a bandage firmly drawn, a dose of laudanum administered, and the woman did well.

The other case was something similar, except that the placenta came away naturally, without any hæmorrhage. I had convinced myself, as my custom is, that the uterus was contracted; it was apparently as round as a ball. I had washed my hands, and was about to congratulate my patient, and take my leave, when I observed her become deathly faint, and at the same moment a sound of fluid dripping from the bed was heard. Instantly taking off my coat from the right arm, and introducing my hand, I became aware of two bands of contraction, leaving interstices filled with blood. I have no doubt that there was also irregular contraction in this case, owing to the presence of small clots of blood interfering with the perfect and uniform closure of the uterine cavity. The same treatment was observed as in the former case, and the patient recovered. This was her first child.

I have adopted this treatment in all subsequent cases of uterine hæmorrhage after delivery, and always with success, never having met with the *misfortune* of being called to a patient whose vital power was too far gone to give rise to contraction. No doubt such cases often occur. I consider this practice to be based on rational principles; while the treatment by ipecacuanha, recommended by Mr. Higginbottom, appears to be, to say the least of it, empirical. When hæmorrhage is suspected, a dose of secale, administered at the close of the birth of the child, is a safe and good adjunct.

I am, Sir, your obedient servant,

SPENCER PIDCOCK, M.R.C.S.

SIGNS OF PREGNANCY.

We find in the Chicago Medical Journal an article furnished by JOHN EDDY, M. D., who claims the following as a never failing sign of Pregnancy. He says:

"I would say there is a sign provided by the mother, as positive, and more so, than any presented by the child." * * * * *

"that is a papula, or pimples on the edges of the os tincæ or mouth of the womb, and when this condition is present, I never hesitate to declare, on oath or otherwise, that the woman is pregnant; and yet in no case have I been deceived, and I am sure I never shall be, if the os tincæ is in other respects healthy. There is a lady near me, who asked my opinion about nine months ago; the condition of os tincæ being as above described, I declared her to be in the family way, and in February last she furnished the proof; and I might furnish other cases, but I presume most of the profession are well acquainted with this my test; if I supposed they were not I would be more minute in describing it. If I were to decide in a case of life or death, I should rely more upon this sign furnished by the mother, than any furnished by the child."

TREATMENT OF THREATENING MAMMARY ABSCESS.

℞—Linseed oil, one oz., Honey, do do. To be stewed over a slow fire, at a moderate heat, until the flour has become converted into a paste, and completely incorporated with the honey and oil. While warm add to this one ounce of camphor, ground into a fine powder, with a little sulphuric ether or strong alcohol. Mix the camphor with the paste intimately, and spread a plaster on a piece of cloth or cotton; apply this to the inflamed breast, and keep it on night and day until relief is obtained. It is well to take the plaster off every morning, and sprinkle about a drachm of finely powdered camphor over it;—then re-apply as before.

(Dr. Wilkinson, of the parish of Plaquemine, speaks in high terms of the above application in the early stages of milk abscess, or rather in cases where the inflammation of the mammary gland threatens to terminate in an abscess. If applied in the forming stage of the affection, he assures us it will seldom fail, especially when assisted by suitable constitutional treatment. —Ed.)—*N. O. Med. and Sur. Jour.*

POISONING WITH OIL OF TANSY.

A healthy looking girl, aged twenty-one years, for the purpose of procuring abortion at about the fourth, took one ounce and

three drachms of the oil. In fifteen minutes after swallowing it she was seized with violent convulsions; total unconsciousness; cheeks flushed, of a bright red color; eyes open and very brilliant; pupils of equal size, widely dilated and immovable; sclerotics injected; skin warm; respiration hurried, labored and stertorous, and obstructed by an abundance of frothy mucus, which filled the air-passages, and was blown from between the lips in expiration; the breath had a strong odor of tansy. At intervals of from five to ten minutes the convulsions recurred, in which the head was thrown back, the respiration suspended, the arms raised and kept rigidly extended, and the fingers contracted—this state continued for about half a minute, and was succeeded by a tremulous motion, often sufficient to shake the room, together with very faint and imperfect attempts at inspiration. She died in three hours and a half after taking the poison. The mucous membrane of the stomach was found pale, not vascular in any part, but throughout nearly the whole of the greater pouch, brownish and much thinned and softened, so that for a considerable space it was nearly or quite destroyed. Portions of the oil were found in the stomach. The uterus contained a well-formed female fœtus, about four months old.—*American Jour. of Med. Sci.*

PUERPERAL FEVER.

M. Trousseau thus concludes his dissertation upon this disease, before the French Academy:—

Considering the subject of treatment, M. Trousseau remarked, that he also had had his successes and his hours of illusion; but that, since he had learned to distinguish puerperal symptoms, properly called, he found he was not any more successful than others against true puerperal fever. He did not believe that the best ventilation in the world would influence an epidemic. Evidence of this is seen in camps in the open air. Nor did he believe in uterine and vaginal injection, of which so much is said. In puerperal fever, as in wounds, the infection is owing to something else than the contact of pus with the traumatic surface, and its longer or shorter sojourn upon the naked tissue.

There is something of which we are ignorant, and for which the most assiduous washings and the greatest attention to cleanliness is of no account. Nor did he believe in the treatment by sulphate of quinia. As a preventative measure, he had no confidence in it; for in those cases in which it has had an apparent success, how is it known that they were cases of true puerperal fever? for it is well understood that, in seasons of an epidemic, all cases take on the character of the reigning disease. The capriciousness of epidemic has been often remarked, invading one ward and leaving another untouched; affecting all females who enter a hospital to-day, and suddenly disappearing to-morrow. This, if I recollect aright, was the case with the wards under the care of M. Piedagnel, they being one of the privileged class; so that, notwithstanding his great authority, I am still doubtful as to the preventive action of sulphate of quinia.

It is the same with the curative effects of this salt. The cases reported cured by M. Beau, are those where the peritonitis was limited to the subumbilical region. I can readily believe this; but I also believe that a peritonitis so simple, so limited might be cured by the use of emollients or local antiphlogistics and even by expectation alone. The mistake is in confounding puerperal fever with simple puerperal symptoms. We also cure these latter, and without the aid of quinine.

I close, declaring, as at the beginning of my remarks, that puerperal fever is a specific disease which attacks lying-in women, new-born children, the fœtus in the maternal womb, women not in the puerperal state, men even, wounded or having a limb amputated, and other patients also, who are in conditions of puerperality. I add, that the treatment of puerperal fever, both prophylactic and curative, is yet to be discovered.—*American Med. Month.*

ON THE PROPHYLACTIC TREATMENT OF HABITUAL DISPOSITION TO ABORTION.

By Dr. Metsch.

When the disposition to abortion is dependant upon a diminished vitality of the uterine system, or functional weakness of its

nutritive vessels, Dr. Metsch says, that medicines of a stimulant and strengthening description, acting powerfully upon the circulation of the organ, are indicated, and of all such substances, *savine* is that which is most to be relied upon for this end. Of course so powerful a drug requires skilful selection of appropriate cases for its employment, or it may give rise to hyperæmia of the pelvic and abdominal organs, inducing hæmorrrhage, inflammation, abortion, or death itself. Local or general plethora, or serious disease of any part, contraindicate its use. An infusion is made by adding from two to four drachms to six ounces of boiling water—a spoonful being given morning and afternoon during the intervals between the menstrual periods. On several occasions, before commencing with it, catarrhal or gastric disturbances have to be allayed, as also irritation dependant upon congestion, rheumatism, or disorder of the nervous system. Small general or local bleedings, emetics, aperients, tepid baths, or friction of the surface, are required in different cases. So, too, regulation of diet, abstinence from sexual excitement, rest in the horizontal position, as long as pain is present, are then indicated.

If the diposition to abortion depends upon an augmented irritability and contractility, (a condition not always opposed to the first named,) the savine does not alone suffice, but a medicine is required that exerts a special effect in regularizing uterine irritability, *the ergot of rye*, which should be added to the savine infusion, in the proportion of one to two, when former miscarriages were induced by the primary contraction of the womb, without preliminary hæmorrhage. Another modification in the prophylaxis is to be made when former abortions were attended with great urinary irritation; in which case, six drops *tr.* of *lyttæ* should be used to each dose. When, prior to former abortions, there was great disturbance of the digestive organs, very small doses of *ipecac.* may be alternated with the above.

The savine has also been found useful in various chronic diseases of the female genital organs, connected with vascular and secretory torpor, especially in passive hæmorrhages and leucorrhœ. In the same way it is of good service, conjoined with mechanical means, in treating prolapsus uteri, consequent on frequent or difficult labors and abortions—*Zeitschrift fur Gerburtkunde*, Band xxvi., pp. 339, 355.

STRANGULATED HERNIA.

When in 1855 (Gaz. Hebd., No. 39, p. 707), we reported the success announced by M. de la Rue in the treatment of strangulated hernia, by the internal administration of belladona, we regretted that the four facts reported by this physician, were not sufficiently precise or complete, to furnish the clinical proof of the efficacy of the new method. Since then, some trials have been made, and successful cases published.

We publish very willingly this one, in which the details so well given leave no doubts of the existence of a strangulated hernia true or *primitive*, as some have called it, to distinguish it from inflammatory or false strangulation.

Case. "A miller, aged 59 years, had been suffering for twenty-seven years, with an inguinal hernia of the right side, for which he had used a truss from the beginning. About six months ago he broke his truss, and not seeing the hernia descend, he believed himself radically cured, when on the 24th June last, on his way to his mill, without having made the least effort, he felt his hernia descend *suddenly*. Violent pains, convulsive movements, free vomiting of billious matter at first, and then fecal matters immediately came on. Stubborn constipation, hiccough, great thirst, small, hard, frequent pulse, cold skin, clammy sweat, pale, pinched expression also very soon followed. The tumor hard, and extremely sensitive and painful to pressure, was not changed by the attempt to reduce it by taxis. M. L'Hermier then prescribed the following mixture: Ext. Belladona grs. vi, orange flower water ℥iiss, syrup poppies ℥ss. Take a spoonful every half hour. At the same time, a cataplasm sprinkled with twenty drops Tinct. Belladona and twenty drops Tinct. Hyoscyamus was applied to the tumor. The patient not being able to bear the weight of the cataplasm, was placed in a bath, where he remained an hour.

After the second spoonful of the mixture of Belladona, the expression became natural; the pulse became more natural in force and frequency; the hiccough, nausea, vomiting, and cramps disappeared. At the end of five hours the hernia itself reduced spontaneously, and the patient slept quietly."

This is a strangulated hernia reduced by the influence of

Belladona, an antispasmodic par excellence, which acts, as we know, in neutralizing muscular contractility; but here are now some observations on cases of strangulated hernia reduced by excitants of the first degree—by coffee and strychnine.

The employment of coffee, observed already as a current practice in Havana, by M. Durand, has succeeded marvelously in two cases reported by M. Carère, a physician at Marnac (Yers) who prescribed it in doses of a half cup every quarter of an hour. Nine cups in one case, seven to eight in another, were sufficient to cause a spontaneous reduction. (Bulletin de Therapeutic.)

M. Garcia Lopez reports that, having been called to a woman fifty years old, presenting all the signs of strangulated crural hernia, he tried in vain the taxis and employed not less ineffectually Belladona internally and topically. He then thought that if he could have an intra-abdominal force which would draw upon the intestine, the hernia would be reduced with facility. Convinced that strychnia, which developes contractions of the muscular tissue, would produce in the hernia contractile movements which would decide its reduction, he administered at two different times, at a quarter of an hour of interval, an injection composed of the 1—16 gr. strychnia, in ʒviii water. Some minutes after the injection the patient was taken with a general trembling, stiffness of the inferior maxilary and with all the signs of a mediocre intoxication. In this condition, and with a light pressure exercised by the physician, the hernia was completely reduced. An injection of warm water with laudanum was administered, and all the phenomena provoked by the strychnia disappeared. (Revue de Therapeutique, Abeille Medicalle, 15 Sep., 1857.)

Can there be substances whose action is so opposite (at least in appearance) (1), as belladona and strychnia, which will equally overcome the same surgical accident? This is possible, assuredly, if we admit two varieties of strangulation, one which is produced by the neck of the hernial sac, and the other by the fibrous rings of the abdomen. Strychnia cures the first, while belladona overcomes the second, in producing relaxation of the muscles of the abdominal walls, and destroying the spasm of the muscular coat of the intestine. But we know how strangulation

by the fibrous rings is contestible and contested, and how rare are the cases where it may not be called in doubt. Is it possible, then, that a hernia can be the seat and the point of departure of a number of accidents equally grave and mortal; and whose physiognomy simulate so well the veritable strangulation, which some have designated by the collective name of pseudo-strangulations? The most skilful are deceived, and we hold that it is often very difficult to know whether belladona, coffee, or strychnia have reduced a real strangulation, or whether they have only remedied a simple engorgement, which provokes the beginning of a hernial peritonitis. However it may be, we hold that the surgeon, before resolving to perform an operation, will do well to exhaust the means just noticed, taking care not to have recourse to strychnia, but as a last resort, and using it with the greatest circumspection, on account of its prompt toxic effects. We recommend its use with much reserve as the utiltty for its employment is not yet based but on one case—*Gaz. Hebd.*

[The subject of hernia is an important one to the profession; for it is frequently most difficult to overcome the constriction, and to return the intestine to its proper locality. An operation should be considered the *last resort*, and in no instance undertaken, especially by an inexperienced surgeon, until every possible expedient has been resorted to for the relief of the patient. We beg leave to offer the following plan, which has succeeded admirably in our hands:—

(1) Inverse the patient's body, so that the bulk of the intestines may be carried towards the diapram, by the force of its own gravity.

(2) With the right hand seize the testicle of the affected side; make traction until the cord is tense, and then by a gentle motion carry the testicle alternately to the right and the left, as far in each direction as can be done without giving pain to the patient.

(3) With the left hand attempt to return the tumor into the abdominal cavity.

(4) If these means fail, keep the patient in the *same position*, and apply the cold douch immediately upon the constricted point.—Editor.]

REMOVAL OF WARTS BY CHROMIC ACID.

In a late number of the "Medical Times and Gazette" appeared some experiments by Mr. Marshall, on the use of chromic acid. Two cases have recently come under my own observation, and the results have been very satisfactory. A gentleman called on me about three months ago, complaining of a wart on the top of his head; it was about the size of a twenty-five cent piece, and the extremity was rough and split vertically. He had suffered from it for several years, and it gave him a great deal of trouble, bleeding whenever he combed his head. I painted it thoroughly my means of a glass brush, with a saturated solution of chromic acid. The remedy produced little pain, the surface of the wart instantly blackened, and twelve days afterwards a scab fell off, leaving a clear reddish surface underneath, and perfectly smooth. I examined this gentleman's head a few days ago; the skin is now perfectly healthy, and hair is growing on it. About two weeks ago, another case presented itself, of a similar character. I applied the same remedy. The scab, however, has not yet separated, but I fully expect the result to be identical with the former. The advantage of this caustic is, that it leaves no scar, and does not destroy the hair-bulbs when applied to the scalp. Its influence is undoubtedly owing to the readiness with which it parts with its oxygen, yielding half its oxygen when applied to organic substances, passing to the state of green sesquioxide of chromium—this being the most powerful oxydiser we possess. Its preparation is very simple. Make a saturated solution of bichromate of potash, and add strong sulphuric acid as long as any precipitate of chromic acid falls; pour off the supernatant liquor, and dry the residue on a tile or brick. I prefer filtering through a glass funnel partially filled with asbestos. In preparing it, caution must be used not to allow any organic substance, as paper or wood, to come in contact with it, as instant decomposition ensues. The solution I employ is one part chromic acid and one part water.—*New Orleans Med. News.*

TREATMENT OF CHANCRE IN THE EARLY STAGE OF SYPHILIS.

The great majority of cases come to us in the primary stage—the greater part of these in the formative process. There is a chancre developing itself upon some part of the genital organs, with or without swelling and soreness in one or more of the neighboring lymphatics. There has been no constitutional infection as yet. The chancre is the point of disease; destroy it, and we get rid of the specific poison, and the sore will heal. The lymphatic can only be considered as affected by sympathetic irritation. The point of interest to the physician is to destroy the chancre as speedily as possible; if there be no hardened base, he may apply some caustic, dress the sore with simple cerate, and in a few days it will heal, and give no further trouble. If the chancre has an indurated base, the question is, can this be destroyed in reasonable time by escharotics, or is exsection preferable? The knife is often to be preferred to a mere superficial application of caustic. The surgeon will remove the tumor, apply some lunar caustic, and treat the sore afterwards as a simple wound; but, in most cases, he will find that a solution of penitrate of mercury, or of the fuming nitric acid, or a strong solution of nitrate of silver, will, if properly applied, obviate the necessity of "cutting out," to which most patients object.

Let him take a small portion of cotton wadding, saturate it with one of the above corrosives, and apply it directly to the chancre; place upon it several doubles of lint, to soak up any excess of the liquid, and prevent it spreading over healthy parts. A strip of adhesive or isinglass plaster will retain them *in situ*. When this "dressing" is removed, he may, before the eschar sloughs off, apply a dressing of mercurial, basilicon, or simple ointment, or what I think preferable, a strong solution of tannin in water (℥ij to the ℥), by saturating a pledget of lint, and retaining it on the sore with a strip of plaster. If, after the eschar comes off, there be evidence that the chancre has not been completely destroyed, he can repeat the cauterization; when healthy granulations appear, a simple cerate dressing will be all that is necessary. Sores that present profuse ichorous discharges, or having a tendency to spread rapidly over the superficies, will

derive great benefit from a dressing of the tannin solution, or from tannin in powder. If much tumefaction or inflammation supervene, soft poultices containing laudanum may be of benefit, but they should be used sparingly, as they lower the action and tone of the parts to which they are applied, and prepare the way for sloughing; fomentation with tepid water and laudanum answers as well, and being changed oftener, may be preferable. One or more of the neighboring lymphatics may be swollen and painful; this is either from infection or sympathetic irritation (in most cases the latter), and will disappear after the destruction of the chancre. Such a result may be hastened by rubbing in over it a little mercurial ointment once or twice a day. If the swelling remains, or increases, and presents evidence of specific disease, a constitutional treatment will be proper. Proto-iodide of mercury, in grain doses, three times a day, with the application of mercurial ointment over the gland, will most probably cause its resolution. If the chancre seems sluggish, and little disposed to heal, after a moderate mercurial impression on the mouth, I have found iodide of potassium act very beneficially, being almost as valuable in this stage of syphilis as in the secondary (*see* page 185, vol. x.). To obtain the best results with iodide of potassium, the dose must be steadily increased from say eight or ten grains three times a day up to a hundred or a hundred and twenty grains daily, in three or four doses, always halting, and proceeding cautiously in increasing the dose when sneezing becomes violent, or the conjunctiva irritated and inflamed. Iodide of potassium, like nitrate of potash, should be given in a considerable amount of any vehicle desirable. I commonly order the dose to be taken in a teacupful of hop tea, and seldom hear complaint of irritation of the stomach or fauces.—*Med. Surg. Reporter.*

NEW METHOD OF AMPUTATION.

M. Maisonneuve of Paris has lately proposed a new method of amputating, which deserves the attention of surgeons. It is styled by him the diaclastic, or that by rupture; and he has furnished a detailed description of the procedure, setting forth its

advantages, and accompanying the account with a wood engraving of the instrument devised for executing it. This paper may be found in the Gazette Medicale de Paris for the 8th of May, 1858. It was at first our intention to have translated the entire article for the pages of the Journal, but time at present failing us, we will allude to the main points of interest, and live in hope that some one will hereafter favor us with the whole in an English dress.

The author, who is now surgeon at the Hospital La Pitié, in Paris, begins his paper by referring to the danger of amputations in general, and asserts that "among the numerous patients who die after being operated upon, at least four-fifths succumb to accidents inherent in the operation itself."

Purulent infection, according to M. Maisonneuve, is the most frequent and the most fatal sequela of amputation. The researches of Velpeau, Dance and Mareschal are referred to as having thoroughly opened the subject, and exposed the mechanism of the morbid action. The poisoning of the blood by the pus, which, being formed in the interior of the veins, is at once thrown upon the circulatory torrent, is the cause of the terrible results observed. Phlebitis and purulent infection are therefore understood as virtually synonymous in surgical language.

The fact that the most skillful operators have very generally been observed to have some of the most unfortunate cases as to results, is noticed by M. Maisonneuve; and he attributes this to the constant desire of such surgeons to use the knife, while others, less skillful with the latter, oftener have recourse to ligatures and caustics, or else "to instruments which, like scissors, bruise the tissues during division."

The surface of a wound after amputation by the knife, presents, as the author remarks, a space open to the action and penetration of the subsequently formed purulent matter; and especially the gaping mouths of the divided vessels are thus exposed to the extension of suppurative inflammation. It is not, therefore, surprising that "purulent infection" often follows capital operations.

Many experiments to test the capability of this apparatus were made upon the dead body before its originator tried it on

the living. On the 1st of May 1857, M. Maisonneuve amputated, partially by this method, the leg of a young man, 20 years of age, who had a "white swelling" upon the foot. The bone was broken by the instrument, but the knife was used to divide the soft parts. The patient recovered well from the operation.

The operator's second trial was made September 15th, 1857, and entirely in conformation to the new process; the bone being broken by the instrument, and the soft parts divided by extemporaneous ligature. This patient was wholly cured, and went out of the hospital on the 15th of December, walking with an artificial leg. Four other cases are given, and all were completely successful. Five legs and one forearm were the limbs concerned. As yet, the operator has not thus removed either the thigh or the arm.

The representation of the apparatus follows the above account of the cases; and subsequently a more minute description of the instrument and of the operation is given; We translate, in full, the author's "conclusions:"

"1. Amongst the accidents which compromise the success of capital operations, that known as phlebitis or purulent infection is, without dispute, the most frequent and disastrous.

2. This affection is most often declared after amputation of the extremities, and generally after such as are done by the knife.

3. The affection is almost never observed after operations done by ligature, caustics or arrachement.

4. The cause of this difference is the perfectly occluded condition in which the last named methods leave the vascular orifices, while, on the contrary, the knife leaves them wholly exposed.

5. Until the present time, every attempt to apply the proposed method to the amputation of the extremities has failed, because the bones could not be conveniently divided.

6. By the diaclastic method, this difficulty is removed.

7. In combination with the extemporaneous ligature, the diaclastic method gives the surgeon a very simple system of amputation, and one very easy to carry out.

8. In addition to the special advantages which this combination of operative measures affords, as regards purulent infection, there is this one in particular; that the surgeon can perform the operation without assistance; that no blood whatever is lost, and no ligature of vessels required.

9. The first trials of this new method, where the leg and forearm have been amputated, have been as encouraging as could possibly have been anticipated, since all the six patients operated upon have been cured."—*Boston Journal.*

THERAPEUTICS.

The following resumé is from Professor Hauner's work on the Therapeutics of Children, published a few years since, and translated by Dr. Dowler of New Orleans:

1. *Chlorate of Potassa.*—Employed for many years with constant success in *stomatitis* and *ulcers of the mouth*, and in more than 70 cases. The results are wonderful; for in four hours the penetrating, disagreeable odor of the mouth disappears, and the cure is rapid. It is very valuable in diphtheritic affections of the mouth and throat, and in mercurial ulcerations; but its value is less constant in these cases:—℞. *Potas. Chlorat.*, ℥ss-℥j; *Aq. Distillat.*, ℥iij-℥jv; *Syrup Alb.*, ℥ss; *m. ft. mist S. To be used in* 24 *hours.*

2. *Cod Liver Oil.*—Has been given in at least 200 cases of rickets, of every form; all of which have been cured. The other hygienic and medicinal means, as baths, lotions, etc., have not been the principal curative means; for, employed without the oil, the cure has not been effected. The oil is given in doses of from three to four dessert spoonfuls a day. Gastric and diarrhœal affections, if existing, must be treated before giving the oil. In Summer, and during warm days, it is much less easily supported than in Winter, and in cool weather.

3. *Tincture of Artificial Musk* (*Musc Ambrée*).—In laryngeal spasm, uncomplicated. Nothing is said of either dose or formula. Employed with constant success in more than 30 cases.

4. *Arsenic.—Fowler's Solution*, in various cutaneous eruptions; as the different forms of eczema, prurigo, psoriasis guttata, etc.

The constitutional origin of these affections is first sought out, and the treatment governed by the same. Those which resist the ordinary rational and empirical treatment, are amenable to arsenic ℞. *Liq. Potas. Arsenical.*, ʒj; Aq. Destil., ʒss; S. Take five drops, at first, twice, and afterwards three times a day. At the expiration of one month, the Fowler may be given pure. Fatty and impure aliments must be avoided, and the patient must be warmly clad. Baths hasten the cure. No serious result has been observed from the medicine, but the existence of diarrhœa, either contra-indicates the use of the agent, or neutralizes the result.

5. *Nitrate of Silver* in the decline of *croup*, rubeolic cough, *inflammatory angina*, and in ophthalmia of the new-born. (*Abortive treatment.*)

6. *Sulphuric Acid, prepared; Elixir of Haller.*—This medicine, so readily taken by patients of all ages, has rendered the greatest service in typhoid, and exanthematous fevers; in diseases of the blood and of the vascular system, appertaining to scorbutic affections, especially in the *Spotted Disease of Werlhoff.* It is given with other appropriate remedies by adding from ʒss. to ʒj. of the medicine, to from ℥jss. to ℥jvss. of the syrup of marshmallows, and adding a table-spoonful of this to the common drinks.

7. *Arnica.*—M. Hauner having witnessed the abuse of this remedy, at the beginning of his career, completely laid it aside. Nevertheless, of late, he has used it on the recommendation of Dr. Schneider in three cases of *serous exudation*, in children notably scrofulous, but free from any specific dyscrasia. The first two were children brought to the hospital with pleuritic effusions, which had been misunderstood, having been regarded by Dr. S. as purulent. The debility was so great that thoracentesis could not be ventured upon. The ordinary treatment was unavailing. A complete cure was effected by arnica. M. Hauner obtained similar results in the city, in the case of a woman of twenty years of age. The third child was attacked with an arachnoïdian effusion, with well marked symptoms; and which slowly disappeared.

In all these cases perseverance is requisite; for those affections do not rapidly yield. These four cases do not afford sufficient

data on which to determine the value of arnica; but they afford new exemplifications of its value. Take of flowers of arnica 3ss.-3j, or 3jss. to make from ℥ij to ℥ijss. of infusion; to which ℥ss of Syrup of Senega is to be added; and one or two dessert-spoonfuls are to be taken every two hours. The woman took ℥ss of the flowers.

8. *Chinchona, Quinine.*—In intermittent fevers, used both internally and endermically. There exists yet another form of fever, nearly approaching typhoid, characterized by feebleness at the onset; and which calls for the employment of quinine. This is the *stupid typhoid fever* of the ancients; the *remittent fever of children, without localization*, of many authors. The diagnosis of the disease is very difficult. It is wanting in the usual dry and red tongue, the febrile pulse, the abdominal sensibility, especially the pain in the ilio-cæcal region, the distension of the belly, the typhoid stools, etc.; indeed, almost all the signs which characterize typhoid. It is not a cerebral affection; for the history, the primary symptoms, the condition of the eyes, the absence of vomiting, the state of the abdomen, the position of the patient, the intervals of relief, all show the contrary. This disease is no more nor less than a peculiar species of nervous excitation in excitable children, which is most frequently found during the years of evolution. If unfortunately we have employed antiphlogistics, or purgatives, or if we have refrained from treatment, there results a long continued disease, wasting the patient with hectic fever; or, indeed, the disease may localize itself on the brain or lungs, according to the individual predisposition of the patient; and carry off the children by a secondary affection. Quinine is the true panacea against this fever.

Quinine has the most salutary influence in hectic fever, even when owing to the existence of tubercles. M. Hauner cites cases of six girls, from ten to six years of age, consumptives, situated under unfavorable circumstances, in which the cough, sweats, emaciation, (and pulmonary symptoms?) which had resisted other means, disappeared under the use of quinine. If quinine rarely cures such cases, it often gives relief.

Many of the neuroses, and sporadic affections, are also cured by quinine.

In *anæmia* of children, and *atrophy* from bad diet, etc., without localization or disorganization of an important organ, the extract of chichona, cold prepared by maceration, renders the greatest service:—℞. *Ext. Chinchonæ*, gr. jvss-viij; *Aq. Flor. Anthemidis*, ℥x-℥ij; *Syrup Cort. Aurant.*, ℥ss; *S. Two dessert spoonfuls every two or three hours.*

9, 10. *Chamomile* and *White Decoction.*—The first in an especial manner relieves colic brought about by accumulation of gas in the intestines, and it acts as a carminative. The second is a pure mucilaginous substance, indicated in case of bronchial and pulmonary irritation, from what cause soever it may originate. Chamomile is generally employed in *baths*, containing half a handful, or in *injections*, one to two ounces of the medicine infused in from two to three ounces of water.

11. *Columbo.*—In habitual diarrhœa of children and adults. In children, improper nourishment gives rise to a catarrh of the small intestines, or a dysenteric colitis, and from the same cause there is finally developed a state of laxity, and atony of the intestines, manifesting itself by a diarhœa, which is sometimes serous, at others liënteric, which ends in atrophy. This condition does not yield to either calomel, nitrate of siver, or rhubarb; but is sometimes cured by the mild, ferruginous preparations, but especially by the prolonged use of columbo.

℞. *Rad. Columbæ*, gr. viij-℥j; *Aq. Destil.*, ℥j-℥jss.; *coque et adde, Syrup Cort. Aurant.*, ℥ss. *S. Take two dessert spoonfuls every hour. Or thus:* ℞ *Ext. Calumb.*, gr. jvss.-gr. vj; *Aq. Cannel.*, ℥j-℥jss; *Syr. Cort. Aurant.*, ℥ss. *S. To be taken as the preceding mixture.*

12. *Iron.*—M. Hauner employs iron but little. The tincture of the malate of iron, is prescribed in cases of *anæmic* conditions, when there is absence of diarrhœa, febrile excitement, and dyspepsia. The syrup of iodide of iron, has proven advantageous in certain cases of scrofula, in cases of extremely feeble children. Thin attenuated children have a predisposition to pulmonary scrofula, do not well support it, the cough and irritability of the lungs being aggravated by its use.

13. *Jalap.*—One of the best purgatives in cases of children. Children affected with scrofula, opthalmia, chronic cutaneous eruptions, intestinal worms, slow and irregular digestion, etc.;

children of a sluggish habit, large belly, dry skin, slow and indisposed to action, are much more speedily cured when the treatment is begun by an active purgative of jalap and calomel Neither calomel alone, nor senna, nor aloes, is capable of exciting evacuations as abundant, and as derivative as jalap.

14. *Ipecacuanha.*—As an emetic, its efficacy is well established in many diseases, as *whooping-cough*, *catarrhal fevers*, in cases of very excitable feeble children, predisposed to diarrhœa. In small doses this root renders the greatest service in cases of *bronchial catarrhs*, and Spring and Autumnal catarrhal affections accompanied with great irritability of these organs, with cough, mucous *râles* in the bronchial tubes, and difficult expectoration, especially when these conditions are complicated with intestinal catarrh.

℞. *Rad. Ipecac.*, gr. ij-gr. jv; *Aq. Bullientis*, ℥jss.-℥ij; *Macera et Cola; dein adde Syrup Alb.*, ℥ss. *S. Take two dessert spoonfuls every two hours.*

℞. *Rad. Ipecac.*, gr. ij; *Rad. Rhei.* gr. jv; *Aq. Bullient.*, ℥jss; *Macera et Cola; adde Syrup Senegæ*, ℥ss. *S. Take a dessert spoonful every two hours; or give in powder, from* gr. ¾ *to* gr. jss, *with sugar and milk every two hours.*

Ipecacuanha is one of the best remedies in *diarrhœas*, frequent with young infants in the hot season. (Summer diarrhœa, dysenteric diarrhœa.) *An infusion of* ℥jss. to ℥ij *made with* gr. viij *of Ipecacuanha, with the addition of* ℥ss. *of the Syrup of Poppy, given in doses of two dessert spoonfuls every hour.*

Creosote.—Extraordinary means are to be employed only in extraordinary cases, in which the diagnosis is not positive, and in which we are compelled to treat for the more prominent symptoms. To this category belong two cases of *vomiting*, which resisting every other means applied, yielded to the following potion: ℞ *Creasoti, gutt* ij; *Aq. Destillat.*, ℥jss. *Syrupi Albi.*, ℥ss. *S. Take two dessert spoonfuls every hour.*

16. *Aqua Lauro-cerasi.*—The organism of children is subject to revolutions in cases of irritable subjects, so often badly nourished and badly treated, and to subacute and congestive affections, which not unfrequently manifest themselves in the head, chest, and spinal marrow, with symptoms of nervous irritation,

simulating to a certain extent, cerebral hyperæmia, pneumonia, carditis, myelitis, of which diseases there are only wanting the local pathognomonic signs. The spasmodic pulse, the extreme irritability, the dry skin, the heat, the general agitation, the violent palpitations of the heart, the fatiguing dry cough, under the influence of the *Aq. Laur. Ceras.*, are subjected to a calmative which is unequalled in efficacy by any other medicine. These conditions are moreover frequently met with. This water is still more efficacious in the spasmodic and convulsive cough of children, and in that of consumptives. ℞: *Aq. Laur. Cerasi., gtt.* vj--x--xx; *Syrupi Albi*, ℥j; *S. Take a dessert spoonful every two hours.*

17. *Opium, Morphine.*—These agents are not frequently employed by M. Hauner. In the *diarrhœas*, he treats with opium only those which are the most obstinate; and he uses it in dysentery. He administers it in very minute doses, combined with calomel. R. *Pulv. Opii*, gr. $\frac{1}{30}$ $\frac{1}{15}$, *Calomel*, gr. $\frac{1}{10}$ ℈; *Sacchari Lactis*, gr. viij; *m. ft. Pulv. S. A powder such as this every four hours.*

Its use as a calmative is more general; as in *colic pains*, in neuralgia, in *insomnia* and *nocturnal cough* of consumptives (morphine), the cough of the nervous period of the whooping-cough, in non-irritable and phlegmatic children. As an external application, laudanum enters into the composition of numerous collyrii; is used for the dressing of numerous atonic ulcers, in which it favors the formation of healthy granulations; is used in *spina ventosa, caries*, etc.

18. *Lichen Islandicus.*—Employed as a tonic in mucous affection of the lungs.

19. *Walnut Leaves.—Feuilles de Noyer.*—Long experience has proved to M. Hauner that in *scrofulous affections*, cod-liver oil, so generally recommended, is without effect; that iodine, so very efficacious in certain diseases, the chloruret of barium, antimonials, etc., stand at zero, whilst the walnut leaf, newly dried shows a decidedly advantageous action. (We do not concur in this condemnation of cod-liver oil; nor as to the infrequency of the good effects of iodine in these affections.—*French Translator.*) (We have derived excellent results from iodine administered simultaneously with iron.—*Am. Trans.*)

The principal indication for the use of walnut leaves, is in cases of torpid, sluggish, and inactive children, in scrofulous ulcers, otorrhœa, chronic scrofulous, cutaneous eruptions, in atony and engorgements of the lymphatic system. It need scarcely be remarked that the proper hygienic measures ought to be concurrently adopted.

20. *Rhubarb.*—This root will ever find a place in the treatment of children. In young children with affections of the digestive organs, characterized by a tardy expression of the meconium, by icteric symptoms, by non-febrile dyspepsia, etc.; in short, conditions known under the names of apepsy, flatulence, acidity, gastricism, caused by feebleness of the digestive organs, the consequence of bad alimentation, are cured readily with one or two dessert spoonfuls, daily, of syrup of chickory with rhubarb. But it must not be given in febrile affections, and in diarrhœa, unless they be purely gastric. At a more advanced age, we increase the activity of the syrup of rhubarb, by adding to it the aqueous tincture of this substance. This combination is prescribed in affections of the liver and spleen, and to close the treatment of intermittent fevers, etc. Infusion:—℞. *Rhei. Contus.*, gr. ijss-gr. viij; *Aq. Bullientis*, ℥jss.-ij; *macera et cola. Solution of Extract:*—℞. *Ext. Rhei*, gr. ijss-viij; *Aq. Fœniculi*, ℥jss-℥ij; *m. ft. solutio*—this being one of the best stomachics for children artificially nourished.

21. *Senna.*—With children, rhubarb ordinarily supersedes senna; nevertheless, cases occur in which the more energetic action of the latter is to be preferred; and we generally employ it in the form of the Vienna Laxative. Such cases are cerebral inflammations, and congestions in torpid children; obstinate constipation, having its origin in gastric causes, helminthiasis, the onset of gastric fevers and febrile exanthemata, especially scarlatina and variola, in which it is well to avoid calomel.

22. *Senega.*—In *Croup*, neither at its onset nor at its acme, has it any favorable action; but it is useful at the period of resolution of the disease, and in consecutive affections; it acts well in the laryngitis, which follows measles. In the secretive period of *whooping-cough*, in *chronic bronchitis*, with abundant and tenacious accumulation of mucosity, in catarrhal and typhoid pneumonia, nd especially in rachitic infants.

The decoction may be prepared by boiling from gr. viij. to ʒjv of Senega root, in a sufficient quantity of water, so as to make from ʒjss to ʒij of the decoction, to which may be added ʒss of the syrup of senega, or the medicine may be prescribed in the following form:—℞. *Syrup Senega, Syrup Ipecac, Syrup Glycyrrhizæ*, aa., ʒss. *S. Take two dessert spoonfuls every hour or every two hours.*

23. *Valerian Root, Carbonate of Magnesia.*—These two agents are much employed; especially in the form of a compound powder, much used in Germany, but almost unknown with us. It is called the children's powder, the *pulvis puerorum;* for the preparation of which there are various formulæ. The formula preferred by M. Hauner, is according to the manner of Hufeland, except that the oleo-saccharum of fennel is superseded by the sugar of milk. The following is Hufeland's formula;—℞. *Magnesiæ Carbonatis, part.* xvj; *Radicis Rhei, part.* vj; *Radicis Valerianæ, part.* j; *Fœniculi Oleosacchari, part.* viij; *m. ft. pulv. Let there be taken, according to the age, what will lay at two or three times on the point of a penknife, daily.* However irregular this compound may seem, it is, nevertheless, very valuable; and it is very frequently employed. The valerian, by its essential oil, its extractive principle, and its peculiar acid, acts as a tonic on the nervous system; while the magnesia as an antacid, corrects the acridity of the gastric and intestinal secretions: the part which is acted by the rhubarb is well known.

24. *Mercury,* principally *Calomel.*—The action of mercury is especially resolvent, promoting the secretions; and hence its frequent employment with infants, in which the diseases of organic life are so numerous. M. Hauner especially prescribes calomel in cases of *cerebral affections,* in *idiopathic meningitis,* hyperæmia occurring at the period of dentition, in robust children, in *convulsions,* eclampsia, caused most frequently at that period by cerebral irritation. In these cases the calomel is given in free doses, say from gr. ½, to gr. jss.

The reputation which mercury formerly possessed in cases of *hydrocephalic diseases,* has vanished before a more correct diagnosis of such cases. The granular affections of the meninges and their result, acute hydrocephalus, are neither cured by calomel, subli-

mate nor any other means; and the reported cure in such cases, is founded in error.

Calomel renders important service in all inflammations in which there is a tendency to plastic deposits, and exudations into the internal cavities.

Its favorable action is shown further in *intestinal catarrh* of children, attended with pain, great sensibility, and distention of the belly, with diarrhœa, sometimes abundant, but more frequently moderate. Secondary cerebral symptoms often complicate such cases, sometimes with somnolence and heaviness of the head, at other times with crying and insomnia, attacking especially children badly nourished and at the same time suffering from dentition. Emaciation and leanness do not contraïndicate calomel, though it is important to bear in mind the treatment appropriate to each special case. In affections of the large intestines, characterized by frequent evacuations, with tenesmus and violent, painful efforts, accompanied with cerebral symptoms, often convulsions, even to tetanic cramps, in this true *dysentery*, calomel is the agent specially indicated; and will alone affect a cure. We give from $\frac{1}{6}$ to $\frac{1}{2}$ a grain for a dose, every four or five hours, alone, or associated with feeble doses of opium, say from $\frac{1}{30}$ to $\frac{1}{15}$ of a grain.

Numerous children have been brought to the hospital suffering from the abuse of the infusion of poppy heads. Insomnia, wasting, dryness of the skin, and trembling, showed themselves, owing to narcosis and hyperæmia of the brain. Calomel, in the small doses of from $\frac{1}{6}$ to $\frac{1}{2}$ a grain, continued for a long time and aided by cold lotions to the head, has rendered great service in such cases.

As an anti-syphilitic, M. Hauner employs the soluble mercury of Hahnemann with the greatest success, while every treatment as with iodine, sarsaparilla, etc., has had absolutely no effect. In persisting in his plan of treatment for sufficient length of time, he has secured the permanence of the cure.

25. *Belladonna.*—It always has shown its value in whooping-cough. Nevertheless the last epidemic appeared to be refractory under its use, which M. Hauner explains on the peculiarity of the epidemic, characterized by prolonged catarrhal prodromena, a short spasmodic stage, and a long continued terminal cough.

26. *Tartar Emetic.*—This salt in a single dose of from gr. $\frac{1}{3}$ to gr. ij, according to the age, has often a wonderful effect in *pneumonia*, especially the catarrhal, in broncho-pneumonia, in croup, etc. In case of sanguine and robust infants, in marked inflammation, we must employ it after abstraction of blood, and without the latter, in case of feeble and scrofulous children; but diarrhœa and diseases of the digestive apparatus, contraïndicate the use of the antimonial. Though its use is less admissible in pure *gastric affections;* an accumulation of mucosity in the stomach is one of the complications of catarrhal affections of the respiratory organs and in which it may be admissible.

In doses of from $\frac{1}{12}$ to $\frac{1}{6}$ of a grain, the tartar emetic increases the activity of the secretions and excretions of the skin, lungs, kidneys, intestines, and is indicated in a host of diseases, such as catarrhs, rheumatic, eruptive, and inflammatory fevers, active inflammations, especially of the respiratory apparatus, pulmonary and bronchial catarrhs, and blenorrhagias; affections of the liver and biliary ducts; acute rheumatism, erysipelas, etc.

27. *Cold Water.*—The limits of this article, notwithstanding the importance of the subject, will not permit us to give the details in relation to the use of the agent. M. Hauner refers constantly to articles on the subject previously published, and which we are not in possession of. We can only remark that he employs this agent according to the principle of hydropathy in many diseases, and with great success; such as typhoid affections, croup, the dermatose scrofulous affections, rickets, diseases of the nervous system, etc,

28. *Cold Baths; Injections.*—These are daily used in a great number of affections, the baths and injections being either simple, medicated, or nutritive; these latter being composed of troth and the yolks of eggs. In general the indications have nothing special which is not well known; but M. Hauner employs these means much more freqently than most practitioners, and he extols them excessively.

M. Hauner says nothing of embrocations, sinapisms, and blisters, as he rarely employs them.

Although the preceding article deals in many facts which are already, measurably known, we have not hesitated to thus give

it at some length. It is a summary of the habitual practice of one of our greatest German specialists, who from his position, at the head of a great infantile hospital, is well able to pronounce on the real value of medicines. With this view we give the article entire.—*N. O. Med. and Sur. Journal.*

PHYSIOLOGY.

ON THE TACTILE SENSIBILITY, AND THE MEANS TO MEASURE THE SAME IN ANESTHESIS AND HYPERESTHESIS

By E. Brown Sequard, M. D.

The curious results obtained by Ernest Henry Weber, when investigating what differences existed in the diverse parts of the skin, in relation to the sensations it gives, when touched simultaneously by the two points of a compass, are generally known. We are aware also, that when those points are brought near to each other, and on this side of a given limit, the individual upon whom the experiment is made, only feels one of them; whereas, when they are at a greater distance from each other, and beyond a certain limit, both points are felt. The limit within which one point only is felt, although two are applied, and that beyond which the two points are felt, varies greatly for the diverse parts of the skin, as Weber and twenty other experimentalists have stated; but it varies only very little, for a similar part of the skin, with different individuals in a healthy state, and moreover, it is the same or nearly so, for the homologous parts of the right and the left sides. In 1849, it occurred to me to make use of this valuable expedient, to discover the existence, and degree, of the anesthesis and hyperesthesis.

The results of the researches I made at that time, (especially under the service of M. Rayer,) are recorded in the Comptes-rendus des Séances de la Société de Biologie, 1849, p. 162. (See also Gaz. Medic. de Paris, 1849, p. 1012, and the article *Touch*, in Todd's Cyclopœdia of Anatomy and Physiology.)

From the facts I observed in 1849, and have seen since, this process has enabled us:

1st. To discover the existence of a decrease or increase of the

tactile sensibility in these cases, where, by other means, it would be impossible to ascertain it.

2d. To discover exactly the degree, of diminution or augmentation of tactile sensibility.

3d. And lastly, to assure ourselves in a precise manner, of the changes which supervene, in the cases of anesthesis and hyperesthesis, under the influence of the progress of disease, or the action of medicines.

Among the cases, where the application of the points of the compass, has given me very interesting results, I will mention the three followiug:

1st. Upon a paraplegic, the two points of the instrument, applied simultaneously upon one of the legs, gave but the sensation of one single point, whatsoever the distance between the two extremeties was—10, 15, and even 20 centimetres—and whatever the parts of the leg, where the compass was applied.

I have seen two similar cases, in one of which it was the thigh, in the other the arm, where the phenomena could be observed. In two of the three cases, there was a loss of the knowledge of the place whence the excitation arose.

The patients felt they were touched, but did not know where. In the other case, the patient indicated, that the impression came from the neighborhood of the place of application of one of the points—sometimes the one, sometimes the other.

2d. In a case of paralysis of the movement of the inferior extremity, the patient perceived the sensation of the two points on the back of the foot, even at a distance of five milimetres, which in its normal state, at the same place, the sensation of the two points is only felt when at least at a distance of from 24 to 28 millimetres. The hyperesthesis in this case existed in an excessive degree, not only for what concerns the touch, but even in regard to the sensibility to pain, to cold and to heat.

3d. In a case of fracture of the fibula, with laceration of the perinœal nerve, the sensibility became, at first, nearly completely lost, and I have been enabled to state the rapidity of its return, and its almost daily change, by means of the compass. The theory of Weber, by which the sensation of one single point, when two are applied, should be occasioned by only one

single nervous filiment which might be impressed, cannot be sustained; and it would be easy to show, by means of figures, that by keeping the two points of the compass very near to each other, and by applying them alternately to parts very near to each other, (the points being always within the zone of the preceding experiment,) we could run over all the surface of the body, and give every where only the sensation of one point; from which we would be led to the absurd conclusion, that there is but one simple tactile nervous fibre for all the skin.

Meissner, by supposing that the sensation of one or of two points, depend upon the corpuscles of touch, has set forth an opinion altogether as extravagant.

In the case of hyperesthesis, which I have mentioned above, we will have to admit, if Weber, or if Meissner, were right, that new nervous filiments had formed themselves, or that the corpuscles of touch had augmented.

Since we have made known the utility of the compass, in the diagnosis of the morbid modifications of the tactile sensibilities, several physicians have made use of this process. We will mention among them specially Dr. R. B. Todd, one of the most eminent practitioners of London, and Dr. E. H. Scivcking, the capable director of the excellent English review, *The British and Foreign Medico Chirurgical Review.* In the last No. of that Journal (Jan. 1858, p. 281) is found a note, on an *æsthesiometre* by Dr. Scivcking. This instrument is nothing more than a compass for measuring thicknessess, slightly modified. This compass being in fact superior to the compass of mathematicians, we had one made which differs, in certain respects, from the one which is represented in the English review. We find in all the recent treatises on physiology, tables indicating for the diverse parts of the body, in its normal state, the limits where we begin, and where we cease to feel the two points of the compass, (according as they are brought near or widened.)—*Oglethorpe Med. Jour.*

THE EFFECT OF CHLOROFORM ON THE HEART.

Of all the muscles, the heart most readily manifests the in-

fluence of Chloroform, for it exerts a direct control over the contractility of that organ. When directly applied, it arrests, either momentarily or definitely, all cardiac movement, according to the quantity employed; and if these movements are resumed after their suspension, another dose of Chloroform will again suppress them. In this manner, an idea may be easily formed, in advance, of the effect which will be produced, by considering the quantity of Chloroform used, the actual condition of the organ, &c., &c. There is another important observation to be made in this connexion: Chloroform always exerts a specific influence on the heart, whether it be applied to its exterior, or introduced into its cavities, however small the quantity employed; whilst upon the pericardium, it is powerless, because the extreme density of that membrane renders it impermeable. Experiment: I exposed the heart of a frog, and by leaving the animal alone, assured myself that it was capable of its natural movements. With a delicate brush, I dropped gently the smallest possible quantity of Chloroform upon the anterior surface of the ventricle. I observed the contractions become convulsive immediately, and after a few moments of agitation, the heat diminished rapidly. In three minutes, there was a very slow vermicular motion visible, which commenced at the right auricle, descended to the ventricle, lifting the point, and folding it lightly upon it self, and then ascended from the vertricle to the left auricle, until it grew feebler by degrees and ceased entirely. Notwithstanding this paralysis of the heart, the animal still moved with considerable activity for some time, when it fell into a state of complete immobility, both body and members being perfectly inert. As the movements both of deglutition and respiration were entirely absent, the animal might have been considered dead. This state lasted only two or three moments, when a motion was perceptible between the apex and the base of the vertricle. By degrees this movement gained strength, regulated itself, and was finally fully established throughout the whole organ. The animal remained for some time extended upon its back in a quiescent state; it then began to make some movement with its anterior extremeties, and subsequently with its posterior, until at length it resumed its wonted activity. In a few moments,

it attempted to escape by leaping towards the opening of the vessel in which it was confined.

2. It is well known that when Chloroform is applied to the muscles of a frog, and has produced a local paralysis of their tissues, its effects are extended by degrees throughout the whole body of the animal. But when it is applied to the heart, it does not affect it in the same manner, for that organ after being completely stupified, is capable of returning to its original condition, and the effects resulting from this anaesthetic application confine themselves often times to that particular viscus. In all experiments of this character, I repeat, that the local effects of Chloroform are immediate, and that the heart may be seen to relax or remit its movements according to the quantity of the agent employed. In some instances, the movements of the heart are entirely and instantaneously suppressed, when dogs are suddenly compelled to inhale an atmosphere thoroughly saturated with Chloroform; but frequently, among those who died in this manner, I have seen the movements of the heart return and become very vigorous as soon as the organ was exposed to the air; whilst with those who were only anaestheticised, and who readily resumed their normal condition, the heart continued to beat with decided energy. The same experiment can be made on them as on the frog, and it will be found that by applying Chloroform immediately to that organ, its movements may be retarded, suppressed, &c., according to the quantity experimented with.

3. Chloroform exerts upon the internal surface of the ventricles an action absolutely identical with that described in the subjoined experiment. A heart having been taken from the breast, the ventricles emptied of blood, and washed, I passed half a gramme of Chloroform through the pulmonary vein. The organ was very much excited at the moment of infection, but in an instant after, it became absolutely immovable.

4. It is known already that when a heart is divided in fragments, each of these parts is capable of contracting, dilating, &c., in the same manner as the organ itself. So Chloroform has the same power over them individually, as over the organ in its totality: to such an extent is this true—that particular portions of the heart may be in a state of great activity, while others are in the most absolute repose.

5. The faculty of resuming mobility, after having been quiescent, seems to be inherent in the substance of the heart. This elasticity appears to withstand the most depressing influences; and when it has been forced to yield on that account, it waits but for the slightest occasion to surmount the obstacles by which it is restrained.

6. After death by hanging, strangulation, submersion, &c., it frequently happens, that the heart which has been motionless in the pericardium, resumes its pulsation for some time and with great energy when that membrane is opened, and atmospheric air admitted into its cavity. The same is true after inhalations of Chloroform.

7. Whatever the power which constrains the heart to resume its pulsations after having once been suspended by death, the fact of this resumption, suggests the idea, that in reference to the influence of Chloroform especially, this viscus sustains certain relations to the nervous system essentially different from those which exist between that system and other muscular organs. The opinion of Bernard is also well understood in regard to this point, and he affirms that the muscles of organic life, and the heart particularly, perform their respective functions in a manner peculiar to themselves, and without the intervention of that nervous influence so essential to contractile tissue in general, and which is only exerted upon them in order to suspend their action, or to change their normal condition of activity into some other state.

9. If instead of plunging the heart or its fragments into chloroform, they are exposed to the action of Curare, the contractions of the organ will continue; so that an important difference manifests itself in this connection between a substance whose influence though essentially local is equally uniform, and one which, though possessing the most deadly activity in itself, requires for the exhibition of this quality, that it should be administered under certain definite conditions. If the movements of the heart were under the immediate control of the nervous system, Curare, which has a specific influence on that system, would arrest them instantaneously; but on the other hand, as this organ is directed by a form of contractility peculiar to itself, and over which Curare

has no power, no effect is produced by bringing the heart in contact with that substance.

10. Between the effects of poisons which are really absorbed, and those produced by chloroform, there is a difference which cannot be too much regarded. In those instances where chloroform is introduced into a vein emptying into the heart, death is the immediate result; that organ becoming instantaneously paralyzed. Whilst if Curare be injected into the jugular vein, the cardiac pulsations become feeble by degrees, losing gradually both in energy and frequency, but never ceasing entirely, until a long period has elapsed after the operation.

11. There is a vast difference in the effects of an injection into a vein and an artery, as well as in the results of a slow and a rapid operation. M. Gosselin has seen dogs die instantly after an injection of three or four grammes into the jugular vein; and on the other hand M. Gérardin is said to have thrown seventy-five grammes into the veins of a horse without even producing anaesthesia. There seems to be a contradiction in these two facts, but in reality they sustain each other; the only difference depending on a question of time.

When chloroform is rapidly thrown into a vein, there is a great mass of blood affected by it, forming a clot that is borne to the heart, the functions of which are interrupted mechanically by it as by a foreign body, and physiologically by the influence of the anaesthetic itself upon that organ. But "*au contraire*," when the liquid is injected slowly, there is but a small quantity of blood affected at a time, and the clot is carried by the circulating current to the lungs, where it is again brought back to its normal state under the hematosic influences which are perpetually operating in that locality. And as there is no chloroform in a state of freedom, *i. e.*, uncombined as in the last experiment, there is no specific action on the heart, whatever quantity of the agent be employed, thus anaesthesia is rendered impossible, and the result is invariably the same under every variety of circumstances.

Again, if the Chloroform be thrown into an artery, the clots formed are inevitably swept onward by the sanguineous tide, and instead of being carried to those parts where the work of re-

paration is in progress, they are directed towards the periphery of the body, where they are soon arrested in the delicate capillary vessels, producing a suppression more or less complete of their functions, paralysis, &c. Under these circumstances, the celerity with which the infection is made is of no importance, whatever the extreme to which it is carried; whilst a more moderate method of procedure is alike immaterial in this connexion. So from whatever direction the observation is made, the same result will always be attained, viz:—the part corresponding to the artery which has received the Chloroform becomes paralysed after the infection.

12. From all these facts, it seems demonstrable that Chloroform enters in its natural state into the blood, to be transported by it throughout the whole system, and to produce immediate paralysis of the heart when it comes in contact with the cavities of that impressible organ.—*Translated from the Archives Générales de Médecine, Juillet*, 1858.

THERAPEUTICAL RECORD.

Menorrhagia.—Dr. A. P. Dutcher reports in the Cincinnati Lancet and Observer, a case of this affection which was cured by the following prescription:

℞. Trillium Pendulum (Bethroot), Scutellaria Sateriflora (Scullcap) aa℥i. Aq. Ferrens oj. m. Fiat infus. S. two ounces three times daily.

Leucorrhœa.—Professor John King, in the College Journal, reports that he has used Chlorate of Potassa in Leucorrhœa, and ulceration of the cervix uteri. He gives it internally, and uses it in the form of injection at the same time.

Mammary Abcess.—The extract of Belladonna spread upon a linen cloth in the form of a plaster, and applied to the breast, is highly recommended in this disease.

Gleet.—The internal use of the tincture of Gilsiminum is stated by Dr. Miller to be an excellent remedy for the local hyperæmia upon which Gleet depends. He uses an injection of sulph. of zinc in connexion with it.

Rheumatism.—Dr. Wm. Horeser (Ogelthorpe Med. and Sur-

Journal) states that he employs the Nitro-Muriatic Bath in *all forms* of Rheumatism with great benefit. The following is his formula.

Nitric Acid, } aa ℥j. in a pint of
Muriatic Acid, } water.

Put enough of this mixture into the quantity of water required for the bath to make it as sour as strong vinegar.

Gonorrhœa.—Dr. A. S. Palmer says that he has used Chlorate of Potash in a number of cases of Gonorrhœa, as an injection, with decided advantages. He employs six grains to one ounce of water.

Hæmaturia.—The Medical Review of Cuba recommends the following prescription for Hæmaturia:

℞. Quiniae Sulphat ℥i.
Ext. Absinthi qs.

M. Ft. pil, No. xii. S. One every two hours.

Dysmenorrhœa.—Dr. Fennu advises the subjoined in very painful cases of this affection.

℞. Spt. Camphor ℥iij.
Chloroform ℥ii.
Tinct Opii ℥i.

M. S. A teaspoonful once an hour.

Chorea.—This disease is now treated in Paris, principally on Laennec's plan, somewhat exaggerated. On the first day three grains of Tart. Emetic are given; on the second, four and so on, increasing the quantity continually. The medicine is dissolved in gum water, and given at the rate of a tablespoonful per hour. A writer in the Edinburg Journal recommends arsenic, given in diminished doses, for this affection.

Salivation.—The Chlorate of Potash, in doses of a scruple every hour, is almost a specific for this most distressing affection.

Antidotes for Strychnia.—Camphor is considered one of the best antidotes for strychnia, as is sweet milk and opium.

Consumptive Vomiting.—Small doses of Chloroform are highly recommended by Dr. Baron for this complication.

Typhoid Fever.—The purgative method of Larrogne is now principally resorted to in France, in the treatment of this disease. He begins with an emetic of antimony, and follows it with

salts, in sufficient quantity to produce four or five evacuations a day. In the Thoracic form, Béhier recommends the repeated employment of dry cups.

Lead Colic.—M. Brignet uses electricity to relieve the pains of this malady; employing the ordinary process for eliminating the lead at the same time.

Epilepsy.—Iodide of potassium is recommended by Dr. O' Connor in epilepsy, connected with amenorrhœa and irregular menstruation.

Dilations of the Heart.—Strychnine is highly praised in this derangement of the circulatory apparatus. It should be used endermically.

Tetanus.—Dr. Winston in the *Nashville Journal* speaks favorably of herdic doses of opium in traumatic tetanus. He relates several cases in which that agent was employed to advantage, by beginning with one grain of morphia and increasing the quantity with each paroxysm.

Delirium Tremens.—Dr. Vair Mollé, gives in the Oglethorpe Medical Journal, a case of this disease which was treated successfully with canabis indica. He divided twenty grains of this substance into five pills, and gave one every successive hour.

Carbuncle.—Dr. Hinds, in the Nashville Journal, states that after removing all the devitalized flesh, he applied the saturated tincture of lobelia, with success.

Bite of the Rattle Snake.—A writer in the Oglethorpe Medical Journal, states, that the local application of saltpeter is as sure a cure as "Bibron's Antidote." He reduces it to a powder, makes a crucial incision where the fangs entered, and pushes the remedy in.

Dysentery.—M. Daud reports great success in an epidemic of dysentery, with glycerine, using it as an injection, and repeating it every hour.

Hemorrhage.—Hemorrhage of the temporal artery may be arrested easily, by using a common tailors' thimble and applying a compress over it. Hemorrhage following the extraction of a tooth, may be relieved by cutting a piece of dry sponge into the shape of a cone, and inserting it into the cavity, making the patient close his jaws at the same time. Hemorrhage from sloughing can be arrested by the local application of ergotine.

Dropsies.—A combination of equal parts of sulphate of iron and sulphate of quinine, has in the hands of M. Buys, produced abundant diuresis, and absorption in dropsical effusions.

Anus, Prolapsus of.—Dr. Demarquay condemns Blandins method of excising a portion of the sphincter, and simply removes a portion of the mucous membrane, using the galvano puncture in connection with it.

Hooping Cough.—Nitric Acid lemonade is recommended by Dr. Arnold, of Montreal, in this affection.

Bubo—M. Golicler states that tincture of iodine is the best remedy for bubo. Ricord makes numerous applications of the actual cautery.

Convulsions of Children.—Irrigating the head with cold water is considered by Dr. Lalesque an excellent remedy in convulsions of children.

Turning by External Manipulation.—A Corsican professor proposes to rectify the position of the child by external manipulation; he makes the effort between the eighth and ninth month.

Spermatorrhœa.—The bromide of potassium has been employed to great advantage in this disease; four grains in solution three times daily. Nux vomica in small and continued doses with an occasional cauterization with the nitrate of silver, constitutes the best practice however.

Chancre.—Dr. Sigmund says that chancre must be cauterized within the *first four days*, to prevent secondary symptoms.

Erysipelas.—"Erysipelas is essentially a disease of debility, and when you have witnessed, as I have done, the excellent influence of quinine, of bark and of wine, you will be as thoroughly convinced of this truth as I am." Skey.

Ophthalmia.—The vapor of iodine has proved of advantage in ophthalmia, when all other remedies had failed. It should be dissolved in chloroform and thus evaporated and applied.

EDITORIAL AND MISCELLANEOUS MATTER.

A BOARD OF MEDICAL EXAMINERS FOR THE STATE.

At the late meeting of the Medical Society of North Caro-

lina, the subject of a Medical Board was thoroughly discussed, and a Committee appointed to petition the Legislature in reference to it.

It must be a source of infinite delight to every Physician who properly appreciates his profession, to know that a decided move has been made in this matter, and that there is now a prospect for the passage of such a measure as will protect the people from imposition by excluding the ignorant and unworthy from our ranks. As for ourselves, we rejoice in this action, regarding it it as the most positive and practical proof of the efficiency of our State Organization, and hailing it as the harbinger of a prouder day for Medicine in North Carolina. If nothing more is accomplished at this time, it will at least serve to show by what spirit the members of our society are actuated; it will demonstrate, both to the Physicians and the People, that we appreciate the necessity for reform, and are zealously laboring to secure that most desirable object; it will teach those of our Colleges which have so long and persistently

> "Bent the pliant hinges of the knee,
> That thrift may follow fawning,"

that we cannot countenance those disgraceful mockeries wherein all the paraphernalia of learning is invoked to invest with dignity and importance the annual distribution of Diplomas which are no longer badges of honor or proof of proficiency, but unmeaning records upon which venality has written the story of its own disgrace; and it will serve as a line of demarkation between the real friends of medicine, and those who, though enlisted under her most honorable banner, have prostituted the Profession, as they would sell their souls, for the gratification of personal ambition, the accumulation of wealth, or the advancement of some other selfish and unworthy end.

It has been affirmed that the most uncompromising enemies of this measure of reform are to be found in the ranks of the profession itself, and principally among those of our brethern who have been allured from the elavating and enobling pursuit of their legitimate business, to the exciting, but unsatisfactory arena of politics. This is certainly true to some extent, but we are happy to say that we know of several political doctors whose regard for their original vocation has suffered no abatement whatever, and who, so far from stultifying themselves and disgracing the honorable titles they bear, by opposing this plan for the improvement of the profession, are its most zealous friends and warmest advocates. Some of these, fortunately, are members elect of the General Assembly, and upon their zeal in our cause, together with the influence which they must exert as men of education, cultivation and ability, upon the legislative body, we chiefly rely for the success of our undertaking, and the passage of such a bill as the Committee will present during the coming winter. If there be a physician who is prepared to dishonor himself by opposing us in this effort to advance the most essential interests of our calling, we beg his attention, whilst a few words of advice and warning are poured into his ear. You are a member of an honorable profession. You bear a title, which, though assumed voluntarily, must remain associated with your name until the sands of life are exhausted. You cannot sever the ties which bind you to the Doctorate; for the world will regard you as the representative of your class under every variety of circumstances, and as it is impossible to dissolve your connection with the profession, whatever concerns its interests effects yours likewise; whatever victories are won for it, are your triumphs also, and whatever of dishonor attaches itself thereto is shared by you equally with its most worthy and devoted disciple. It is a duty then, imposed alike by every con-

sideration of self-interest, as well as by the higher incentives which more elevated sentiments engender, to vindicate its honor, to defend its rights, and to assist in the advancement of its interests without regard to the personal sacrifices which this championship demands. Your brethren expect this of you as an act of justice to them and to yourself, whilst the intelligent of every calling, addressing you as "Doctor"—recognizing your connection with the most honorable of the learned professions, and esteeming you a representative of your vocation and an exponent of its sentiments, are only amused or disgusted with your efforts to ignore your professional obligations, and to prostrate a vocation which deserves your most grateful support, that you may build up your fortunes upon its humiliation and ruin. In placing yourself thus in a position of antagonism to this movement, you are arraying all the influence and position at your command against that which a large majority of the most respectable physicians of the State recognize as the most practicable and efficient means for protecting the people against imposition, and for elevating the medical profession in Carolina. You are refusing to co-operate in a plan which seeks to advance the cause of learning and humanity by raising the standard of qualification among those to whom the honor of medicine, and the lives of the citizens of the state are confided. You are attempting to play the demagogue even at the expense of the mortification and defeat of those honorable men who have initiated this movement, and with whom every obligation of honor, of self-respect, of patriotism and of humanity should constrain you to act. You are striking a most ungrateful and cowardly blow at a vocation in whose cause the earliest and noblest aspirations of your heart were enlisted, and in the pursuit of which you first gained admittance into the houses and the hearts of the partial friends who have advanced

you. You may elicit the plaudits of the gallery—for men delight in the spectacle of a divided house. You may overwhelm us with defeat—for so long as passion and prejudice rule the hour, the right cannot prevail. But of this you may be assured; your applause will be that which greets the mountebank. Your triumph will be that of the parricide, and your reward the unmeasured scorn, the ineffable contempt, the utter loathing which is the traitor's doom.

The idea that the people are opposed to this reform, or that they consider us the advocates of an exclusive system, and the supporters of a proud and privileged class, is as absurd in itself as it is prejudicial to the interests of the Profession. The truth is, a deep sense of the inefficiency of our medical graduates pervades every class of the community. The public has lost its confidence in the Physicians of the present day, and no longer accords to them that respectful consideration without which they are powerless for good in their respective spheres of action. The people have been taught by sad experience that multitudes of Practitioners are annually sent forth from the Colleges, unlearned even in the rudiments of the most ordinary education, ignorant of first principles of medical science, and without a single moral qualification for the responsible duties of their position, to acquire knowledge at the expense of human suffering, to grope onward towards the light which experience affords, when every step is upon an agonized frame and a breaking heart, and to fill their pockets with gold either by pandering to the appetites of the vicious, flattering the presumptuous pride of the rich, or spreading their sails to every popular breeze, dreaming only of an El Dorado in the distance. Every reflecting man, whatever his station, feels that he has a personal interest in this matter, and realizes that his life has been endangered, and his property jeopardized by

this deterioration in the qualification of those who profess to be the legitimate sons of Æsculapius. It is for this reason that quacks and charlatans abound. This fact accounts for the immense sale of nostrums and panaceas throughout the land. This conviction has laid the corner stone of all those false and unphysical systems which have deluded the popu lar mind, and disgraced the country in these latter times. And it is on this account, that the necessity for the employment of some effective means to elevate the dignity of the Profession, and to improve its members in the knowledge of their calling, is felt alike by the more respectable Physicians themselves, and by a discriminating public. In a word, if we desire to retain the confidence of our patients; if we wish to make the profession something more than a trade; if we would restore medicine to that commanding and responsible position once secured for it by the learning and virtue of its early disciples; if we would blot out the dishonorable stains which the cupidity, the depravity and the ignorance of its pretended votaries have cast upon the noblest of all the sciences; if we would tear the mask from the face of hypocrisy and pretension, and show their corruptions to the world; if we would be true to ourselves, to the interests of our most exalted calling, and to the promptings of humanity itself, we must unite cordially and unanimously in support of a measure which is not only pregnant with immediate benefits to us as a class, and to the public at large, but which is to serve as a fulcrum, whereon the lever of reform will find a sure support, until medicine has been elevated, at least in Carolina, to that honorable place in the estimation of men, which is its legitimate sphere, and its appropriate destiny.

TO OUR PATRONS.

We return our most grateful acknowledgements for the liberality with which the profession generally has patronized our effort in behalf of a Medical Journal in North Carolina; and beg leave to assure our friends, that their zeal and interest in our cause will only inspire us with a more ardent desire to render the work acceptable to them, and worthy the objects for which it was established. Through the kindness of the Editorial Fraternity, we have been favored with exchanges from all parts of the country, so that we shall be able to present an accurate periscope of the progress of medical science, both at home and abroad, and to chronicle regularly all that relates to the honor and interest of the profession. We only ask indulgence and support from our friends in the incipiency of this undertaking, that we may render its success as certain as their most ardent wishes can suggest, and thus confound those whose evil auguries have neither paralysed us, nor cloaked their malignant and most contemptible hostility to the enterprise. It is certainly true, that our first issue has many defects, for it was prepared by inexperienced hands, and with a degree of haste which precluded the possibility of perfect accuracy, but we are convinced, that as far as the manual execution of the work is concerned, our Journal will compare favorably with a majority of those printed in this country, and that its most uncompromising enemy can find no fault with it in that respect, whatever his opinion of its scientific and literary merits. In saying this we do not mean to indulge any improper adulation of ourself, but simply desire to pay a first tribute to the enterprise and liberality of its publishers. Several glaring errors are apparent in some of the editorial and selected articles, but our readers will easily perceive the real import of the

passages in which they occur, and readily understand how in the hurry of "proof reading" many things are overlooked at first, which seem most patent and conspicuous afterwards.

Our boat is now fairly launched, and we can but express the hope, that favoring breezes and willing hands may speed it onward towards the haven of success, and that not a cloud may arise to threaten its safety or to impede its progress.

Our friends will please remember that our terms are Cash in Advance, and that we must insist upon this rule in every instance. All who have not paid up are earnestly requested to do so immediately, so that we may determine what the prospects of the JOURNAL are. We will thank our subscribers to send us the names of such physicians in their neighborhood as have not already patronized our enterprise.

NORTH CAROLINA

MEDICAL JOURNAL.

Vol. I. DECEMBER, 1858. No. 3.

ORIGINAL COMMUNICATIONS AND TRANSLATIONS

ON THE USE OF CHINOIDINE, OR AMORPHOUS QUININE

By R. Wysong, M. D., of Charlotte, N. C.

In the following article, I do not propose to give to the readers of the *N. C. Med. Journal* anything very new, but merely wish to call their attention to a medicinal preparation which should occupy a prominent place in the materia medica—but which I fear is almost wholly neglected, particularly by Southern physicians—I refer to chinoidine or amorphous quinine.

Chinoidine was used as early as the year 1824, by Dr. Samuel Emlen, of Philadelphia, with entire success; next by Drs. Parish and Wood with like effect; and since that time by many of the prominent physicians of this country, and also of Europe. For the last three years I have substituted it almost entirely for the sulp. quinine, and with the most satisfactory results. I have conversed with many of the oldest and largest practitioners of this and other Southern States upon the effect of chinoidine, and have been very much surprised to learn that the large majority have never even given it a trial. But few of the Southern druggists keep it—never having a call for it.

It was adopted in the edition of the *U. S. Pharmacopœia* for 1830, under the name of impure sulp. quinine, but was abandoned in the edition of 1840, on account of the difficulty of ascertaining its purity. But this is no longer an objection to its use. as Leibig

has instituted a positive test for its purity, viz.: "It is entirely soluble in diluted sulp. acid and in alcohol; and if its solution in dilute acid yield upon the addition of ammonia exactly as much precipitate, as there was of the original substance dissolved, it may be considered pure. I have always found Powers and Wrightman's preparation perfectly reliable."

I have no idea of condeming the use of sulp. quinine. Its votaries are far too numerous for aught that I can say to affect it. But I do insist that at this day, considering the cost of quinine and the possibility of a check to the supply of cinchona bark from the countries producing it, and the absolute indispensibility of the use of some one of its extracts in the treatment of all malarious fevers, that were it possible for the profession to substitute for quinine a cheaper, but not less effective preparation of cinchona bark, it is undoubtedly their duty to do it.

As above stated, it has been my practice to use chinoidine almost entirely instead of quinine, and I have found the former in a slightly increased dose to be equally as efficient as the latter, and in many cases the chinoidine has broken up permanently the paroxysm of an intermittent, when the sulp. quinine had been fairly tested and failed to stop it, except for from three to seven days. I think with an increased dose, chinoidine is in every way equal to sulp. quinine, not only as an anti-periodic, but as a tonic and febrifuge. It is particularly desirable in those cases when quinine affects severely the head, and produces great nausea of the stomach—chinoidine affecting both but slightly, even in very large doses. I have administered it in doses of a scruple every two hours for ten hours, and have never seen it produce emesis. It is also preferable in the case of children, being less bitter.

Below I give three cases of intermittent fever, one of each type, treated with chinoidine; they are selected from a large number noted in my case book:

Case first, Feb. 3d, 1855—Mr. R., age 22, has, according to his own account, had a chill every day for four months, with occasional intervals of from three to five days, after taking large doses of quinine, but a constant return upon the slightest exposure; had been salivated twice; had taken various kinds of the

bitter tonics, but with no permanent effect. There is considerable viceral enlargement. Prs.—eight pills of chinoidine, gr. v each, to commence eight hours before the period of attack, two every two hours. Paroxysm anticipated the usual time, about three and half hours, slight, with but little fever. Feb. 4th—ordered chinoidine ℈ ii, to be taken as above; no chill; no return until the following September; this attack was promptly broken up by the use of this remedy.

Case second, Feb. 15th, 1856—Miss G., age 17, has had tertian intermittent for four months; spleen very much enlarged; liver very sensitive to pressure; bowels constipated; urine scanty and high colored; in short is suffering from all the effects of a long continuation of intermittent fever; has been treated with sulph quinine, cinch. pulv., and many other bitters, none of which broke up the paroxysm for more than from four to seven days; saw her during the chill. Prs.—Hyd. chlorid mite. grs. x, to be taken at bed time, and to be followed by a dose of oil.

Feb. 17th, Prs.—six pills of chin., gr. v each, to commence taking eight hours before the time for chill, two every two hours. Slight chill; much nausea. Feb. 19th; Prs. chinoidine ℥i in pill, grs. xv instead of ten every two hours, commencing as above. No chill nor near so much nausea as on the preceding day of attack; had no return when last heard from, some three months afterwards.

Case third, May 19th, 1857—Mrs. S., age 30, has had quartan intermittent for thirteen months; has been treated with sulp. quinine, and many of the various remedies resorted to in such cases; never has the paroxysm stopped for more than two consecutive weeks; is now very much emaciated; very great viceral enlargement; sleeps badly; has night sweats; and shows all the effects of a long seige of intermittent fever.

Prs.—Hydrag. chlo. mite. grs. x, pulv. ipecac et opii. gr. viii, to be followed by a dose of oil.

May 21st—Since taking the above has slept well, and had several billious discharges Prs.—chinoidine ℈v, in pill, to be taken the following day, commencing ten hours before the period of attack; ℈i every two hours.

May 23d—Had slight chill. Prs.—℈v, to be taken on the following day as the above.

May 26th—No chill; I saw her some three months afterwards, and found that she had no return of the disease.

In each of the above cases, which are selected from a large number, the sulp. quinine had been fairly tested (if we may rely upon the evidence of the patients, which I am not disposed to doubt,) and yet owing to some peculiar condition of the system it failed, or at least only arrested the disease for a short time, when upon the administration of chinoidine, the cure was permanent, or at least for that season.

In each of the above cases I gave large doses, the disease having been of long standing, and I wished to make a decided impression upon the system. But in all recent attacks I use about one third more than I would of sulp. quinine; never failing to break up the disease before the second paroxysm.

Some writers recommend a drachm or two of dilute vinegar to be swallowed a few minutes after taking chinoidine. This I have never tried; I think all that is necessary to insure success is to begin the administration several hours earlier than when giving the sulp. quinine.

A CASE OF LITHOTOMY, READ BEFORE THE STATE MEDICAL SOCIETY.

By Caleb Winslow, M. D., of Hartford, N. C.

I have had a case of stone in the bladder presenting some points of interest. The subject was James D. Webb, son of Rev. John Webb, of Rockohock. He was aged 18 years, and had suffered with symptoms of stone since he was 4 years old. For some months he had been suffering extremely, and his health had become much impaired. He was operated on on the 2d of last November, Drs. Winborne and Riddick assisting me. He resisted the anæsthetic influence of ether to a surprising degree, and was never put fully under it. On opening the bladder, by the lateral operation, a stone presented of a large size. It was at once apparent that it could not be removed entire. The crushing forceps reduced it to many fragments, which were carefully, but tediously, removed piecemeal. After these were

removed, on introducing the finger, and sweeping it around the bladder, it came in contact with the end of a stone, which was encrusted just above the left ramus of the pubis. The walls of the bladder were so closely adherent to the rough exterior of the stone that on making forcible separation, the mucous membrane was brought away on some parts of the stone, while in other parts the exterior lamina was torn loose from the subjacent layers of the calculus, and left adherent to the bladder.

This process of separation was exhausting to both patient and operator, having to be done at the extreme limit of the reach of the finger, which was made to pass repeatedly around and around the stone, pealing off the bladder. The assistance of both Drs. Winborne, and Riddick, was necessary before the stone could be turned out of its bed. Repeatedly during the process the crushing forceps were introduced, and the free part of the calculus reduced to fragments. After the larger of these had been removed by the forceps, the scoop was introduced in search of the debris, when, to our dismay, it came in contact with the free end of another large stone encrusted at the extreme upper part of the fundus. A mass had now been removed as large as two hen's eggs. Three hours had been consumed in the process; the tract of the incision was lacerated to a fearful extent, by the frequent introduction of the forceps, and by the sharp angles of the fragments. Night was at hand, our patient was exhausted, and with feelings of the utmost anxiety for his present safety, we washed out the bladder and put him to bed. This last stone was so high up that we could scarcely reach it with the longest forceps, and there was exposed to the cavity of the bladder, only a plain surface, the rest being enclosed in the cyst. An attempt was made to force down the fundus by pressure exerted through the relaxed walls of the abdomen; but the stone could not be brought within reach of the finger, nor could the forceps be made to seize it.

Previous to the operation the bladder had been injected, without force, with 12 ounces of tepid water, showing a remarkable capacity to be co-existent with the presence of so large a mass of stone. The hemorrhage was very slight.

The operation was followed by very little fever, and the

healing of the wound went on at a rapid rate, notwithstanding the large amount of sand, shreds of mucous membrane, and muco-purulent matter which poured from it. At the end of a week the water passed by the urethra, and by the end of three weeks the wound had closed, except a small fistula through which the urine sometimes flowed in drops during voluntary micturition. The point of the finest probe could not be made to enter the false passage. This condition continued unchanged until the second operation. Meanwhile his health had greatly improved, he had become fleshy and strong, and was going at will about the farm.

A fragment of stone would occasionly engage in the urethra, and being too large to be forced forward would have to be pushed back into the bladder. This he learned to do with great facility himself.

Having called to our council Dr. Edward Warren, Drs. Winborne, Riddick and myself again saw the case on the 10th of April, five and one half months after the first operation.

On attempting to evacuate his bladder, a fragment engaged in the urethra. A beautiful instrument of Dr. Warren's was introduced, the fragment readily seized and removed by incising the orifice. The bladder was now injected with a pint of water and sounded, and the presence of a large stone detected at once. Chloric ether was administered, which very speedily and fully brought him under its influence. An incision was made through the cicatrix, the stone seized, and with the expenditure of considerable force, enlarging the wound by gradual dilatation and by incision, was at length removed. A third fragment as large as a shelled almond was subsequently taken away. A thorough examination was now made by all the medical gentlemen present, and no more stone appeared. The smaller pieces were evidently fragments broken off during the first operation. The larger piece about the size and shape of a hens egg, cut in half in its short diameter, showed the marks of the crushing forceps, which had removed all that part which depended into the bladder, leaving a truncated ovoid, enclosed by the cyst.

By what process the stone once encrusted had become released,

I know not, unless the inflammation set up by the injuries sustained, by the lacerated mucous membrane, and the free suppuration which followed had loosed the adhesions, and allowed the stone to descend by its own gravity.

A subject of remark during the operation was, that the water injected did not escape from the bladder as soon as the prostrate was cut through. I had introduced my finger, removed the stuff and had my forceps upon the stone, when the water was expelled with force by the contraction of the bladder.

From the day of the last operation no urine has passed involuntarily. A small quantity escapes from the wound during the voluntary emptying of the bladder, but this is diminishing daily, and under the care of Dr. Winborne, our patient seems to be rapidly recovering.

SHORTENING THE DURATION OF LABOR.

Mr. Editor:—Permit me to call your attention to the subjoined article from the *American Journal of the Medical Sciences*, Oct., 1858, entitled, "Shortening the Duration of Labor." By Dr. J. Gray.

Perhaps the measure therein recommended to excite uterine contractions may not be new to you; but if it is, I beg leave to assure you that it will bear the test of a trial. My experience with it is confined to the treatment of *post-partum* hemmorrhage, and in the delivery of the secundines—never having resorted to it to hasten the delivery of the child. The idea was first suggested from witnessing after-pains follow the putting of the child to the breast.

The first time I ever tried the measure was in the month of March, 1857; it was in a lady of our town, laboring under *post-partum* hemorrhage. The womb was soft and enlarged. Frictions and frequent graspings with the hand over the region of the organ was immediately adopted, but failed to have the desired effect. I then resorted to frictions to the mammæ, occasionally compressing and gently pulling the nipple so as to resemble as nearly as possible the sucking of the child. In less than thirty seconds from the time the frictions were begun, she complained of severe uterine pain, causing a discharge of a quantity of coagulæ; after which the hemorrhage ceased. Since this I have tried it on a number of cases, and it has never failed to

cause prompt uterine contractions. I am, therefore, fully persuaded of the efficacy of the means; so much so, that when leaving a woman recently delivered, I instruct the nurse or midwife to resort to it if hemorrhage should occur.

When called to women in labor, who are prone to *post-partum* hemorrhage, I always deliver the secundines by causing uterine contractions in this way. It is with me more prompt in its action than the ergot—its effects often being secured in less than a minute after commencing the operation. I generally direct a female attendant to use the friction. It is proper here to state that I never saw the measure recommended in any work on obstetrics, or in any Medical Journal; and that it was never suggested by any individual before I tried it in the case above mentioned. The idea was conceived solely from witnessing uterine pains follow the sucking of the child.

My chief object in bringing this to your notice, is to ask you to give it a trial, and if upon doing so you find it worthy of consideration, you are at liberty to publish this communication, or so much of it as you may deem it necessary, in the next issue of your Journal.

With high regard, your friend and obedient servant,

WM. R KING.

"*Shortening the Duration of Labor.*—Dr. J. Gray recommends (*Glasgow Med. Jour.*, Jan., 1858,) in order to increase the action of the uterus during labor, and thereby expedite delivery, to excite the nipple as labor pain comes on, and continue the stimulation so long as it lasts. This is accomplished by passing the left hand gently but continuously upwards and downwards over one or other of the nipples; or by simulating with the fingers the act of sucking of the infant. By such manipulation, he says, the nipple erects, and, in virtue of *reflex action*, the uterine contractions increase in force; while at the same time the os dilates, and the external parts become relaxed. Besides shortening the duration of labor, he finds it has also the effect of preventing hemorrhage. The second stage of labor completed, if the placenta be not in the passage, he still maintains at short intervals the friction over the nipple, in order that the uterus may expel its contents; and also resorts to it in such cases as he has occasion to fear 'flooding.'

"'Reasoning.' Dr. G. remarks, 'from the practice of ancient and modern times, and influenced especially by the theory of reflex action, as recently discovered and propounded by Marshall Hall, I have lately been led to adopt this mode of irritating the nipple, in order to

increase the action of the uterus, with a view to the abridgment of labor. If, I inquired, the application of the child to the breast causes the womb forcibly to contract, and thus prevents 'flooding,' may not a similar operation, artificially performed, have the same effect in promoting the contractile efforts of the uterus, and hastening the delivery? That it does so, very ample trial has fully convinced me. In difficult cases, indeed, which require instrumental aid for their termination, it will most probably prove useless—failure depending upon malformation either on the part of mother or child. But where the child is in the normal position and of average size, and should no deformity exist in the pelvis or soft parts of the mother, I have found it generally successful. I never, however, be it remembered, interfere in those cases where there is already *active* uterine contraction."

[Note by the Editor.]

We comply with Dr. King's request, in regard to publishing his communication without delay, so that other members of the profession may have an opportunity of giving this method of shortening labor a full and immediate trial. There can be but little doubt of the soundness of the physiological principles upon which it depends, and from the evidence thus afforded of its practical utility, it will doubtless prove a valuable remedy in the hands of the obstetrician. But, though our friend has manifested much acuteness and penetration in working out this plan for the excitation of uterine contraction, the fundamental idea of the whole process was promulgated by Tyler Smith and others immediately after Marshall Hall's beautiful discovery of the spinal or diastalic system. Since then, it has been known to the profession, that titillation of the nipple produces contraction of the gravid uterus, and that parturition can be expedited by thus irritating the mammæ.

BIBLIOGRAPHICAL NOTICES.

VERATRUM VIRIDE.

W. C. Norwood, M. D.

We received some weeks since a pamphlet with the above caption, which was read attentively at the time, and though it is not now before us, we take this occasion to notice it, that we may express our opinion of the remedy so highly eulogized by Dr. Norwood. Physicians, as a general thing, are fond of hob-

bies. They are continually mounting some fresh idea with the determination of riding it to death. They seem to have but one "favorite" at a time, and with a degree of confidence and unanimity, peculiar to themselves, they are ready to back their choice against the field, whether for a steeple chase or a handicap, without the least regard to the "bolts" and "lopes" recorded against the object of their admiration. Veratrum viride has of late been playing this ROLE in the medical world. It is the hobby upon which so many of our M. D's. have been displaying their horsemanship. It is the "favorite" upon which so much has been staked and lost by those who, in the blindness of their zeal, have trusted to the representations of the professional jockies interested pecuniarily in the stock; and the time has now arrived for a candid consideration of its claims to so prominent a position in the therapeutical calendar. But to throw all badinage aside, this remedy has been much overrated, especially by the physicians of the South; as must be admitted by all who have tested it fairly. In the *first* place, it is uncertain in its effects upon the stomach. Some can take it according to "the directions" with impunity, whilst others are affected injuriously by the smallest quantity. Then again, a patient will bear it well at one time, and badly at another; the difference depending upon no appreciable cause.

Secondly, its effect upon the pulse is exceedingly variable. In one instance the heart will be greatly depressed by a very small quantity; in another it will be affected gradually according to the dose given; and in a third case it will produce just about as much effect upon the arterial system as the same quantity of water similarly administered. And *thirdly*, even when the most favorable results are produced, it has really accomplished but little towards the cure of the disease itself, since in inducing arterial sedation, it fails to eradicate the morbific cause, and only masks or abates one of the symptoms whereby this peculiar agency makes itself cognizable.

In view of these facts—which can be readily established both experimentally and theoretically—we can but consider this far-famed drug as ill deserving the conspicuous position which has been assigned it, and as unworthy the encomiums so lavishly be-

stowed upon it, especially by those who have *more* than a professional interest in its sale and employment.

To the country practitioner, who can only make a daily visit to his patient, and who is consequently compelled to depend upon ignorant nurses for the administration of his medicines, veratrum viride is nearly useless, because few agents are so potent in many cases as this, and not one in the whole therapeutical list requires to be watched with such constant and intelligent scrutiny. The accurate and yet complicated directions which have to be given under these circumstances, either impress the patient and his friends with the belief that some most virulent poison has been prescribed, with which it is necessary to dispense so soon as the first unfavorable symptom of any description is experienced or imagined—or so convince him that his life depends upon the administration of the drug, as to induce him to persist in its administration, without regard to the enervating gastric irritation induced by it, or the more serious arterial depression occasioned by its continued employment. In this way, the country practitioner is constantly in danger of doing serious injury to his patients, either negatively, by wasting many hours of the most precious time in dallying with a remedy improperly administered, or positively, by adding an inflammation of the stomach to the catalogue of evils already existing, or by prostrating his victim beyond the possibility of recuperation. In the eastern section of North Carolina, which is essentially a miasmatic region, a large majority of the pneumonic cases, present the most positive evidence of bilious complication. The liver and stomach are more or less irritated and implicated—participating in fact to such an extent in the general derangement, as to give character to the disease itself, and to furnish the most positive indications, respecting its treatment. An intimate and inexplicable sympathy is induced, between these organs and the lungs, by the morbific agent originating the essential lesion, and establishing those relations of reciprocity and dependence which bind them together in their abnormal manifestations, and constitute that pathological unit denominated bilious pneumonia. Whatever affects the lungs deleteriously, produces a corresponding impression upon the organs above named, as is shown by the fact that

as the inflammation of the pulmonary tissue increases, the liver and stomach participate more largely in the general disturbance and manifest a greater degree of morbid impressibility. This evidently results from the mutual dependence above enumerated; and it follows necessarily, that the converse of the proposition is equally true, and that whatever irritates either of the organs referred to, must tend, not to relieve, but to augment the intensity of the disease itself. The proposition that gastric irritation serves but to increase pulmonary inflammation, when this relation of concomitance already exists, is too plain to admit of cavil, or to require demonstration. It is a truth to which all practitioners of experience will assent without dispute; for it is not only acknowledged, but invoked in every successful and rational plan for the treatment of bilious pneumonia. And now, to make an application of these general remarks, we have certain facts grouped together in this connection :

1. A drug capable of producing gastric irritation even under the most favorable circumstances in *some* cases, and *in every* instance, if administered too persistently or in large doses.

2. A stomach already either positively irritated or sympathising with an inflamed organ, and thus particularly susceptible to the influence of any morbific agent with which it is brought in contact.

3. A disease, one of whose essential characteristics is this abnormal condition of the gastric mucous membrane, and in which the stomach and the lungs sustain relations of pathological dependence, so absolute in themselves as to render an increase of irritation in either organ a source of positive injury to the other.

Admitting then that veratrum viride diminishes the force of the pulse, does it not follow that the injury done to the stomach, more than counter-balances the advantages resulting from the arterial sedation? Is it not evident, that this is a dangerous remedy to say the least of it; and that he who depends upon it under such circumstances, to the exclusion of those agents which have been tested by the experience of the whole medical profession for years, commits a grave and most criminal mistake? Does it not become him, to whose hands are confided the lives of

his fellow mortals to deliberate, to pause, to investigate candidly and intelligently, before accepting the mere *dictum* of any man in regard to the appropriate treatment of a disease so complicated in its nature, and fatal in its results, as that for which this most dangerous drug is proclaimed an infallible specific? There can be but one answer to these questions: and we trust that we will not incur the charge of prejudice or enthusiasm, when we urge upon our readers the great importance to themselves, to the professsion and to humanity, of regarding the responses which common sense makes in this connection. This remedy is now almost universally recommended in pneumonias: a large majority of these in Southern latitudes are bilious in their character—having gastric irritability as one of their *essential* features. Veratrum acts directly and specifically upon this membrane; and it follows that its administration, even though the heart may be controlled, and arterial excitement quieted, must be injurious to the patient, since it tends *directly* to inflame one of the organs already suffering, and indirectly to injure another whose lesions originate the disease and determine its character.

The foregoing remarks apply especially to bilious pneumonia; but it strikes us forcibly that objections equally as potent may be urged against its exclusive employment even in the most simple and uncomplicated cases of pulmonary inflammation. It cannot be denied, that whatever may be the activity of the heart under such circumstances, it is only symptomatic of certain abnormal conditions which have been produced in the parenchyma of the lungs, by the action upon them of some morbific agency: it is an effect and not a cause; it is a result and not a primary and specific lesion; it is an exponent; an indication, a sign of the existing disease, but not the disease itself. Certain local and general derangements precede and occasion this cardiac perturbation. Organic congestion and inflammation, with all their concomitant evils, open the way to the condition of confusion and disturbance which impresses itself upon the whole system, and produces that tempestuous commotion in the central organ, whereby the blood is driven in such boiling, surging, and rapid currents through every channel of the fevered frame. This being true, how is it possible that a remedy exercising a specific influence

simply upon the heart, can remove the *cause* of which this eccentric action is only an *effect*? How can it be that this drug, by reducing the excitement of the arterial system, can relieve the organic congestion and inflammation which are the essential lesions of the disease itself, when its powers are limited to a control of a single symptom? Does the boiler which restrains and directs the accumulating steam, exercise the least influence upon the fire raging and glowing in the furnace below, and generating fresh power continually without regard to results or contingencies? Does a removal of the fragments thrown up by the auger, as with sure but stealthy steps it penetrates the gnarled oak, arrests the progress of the instrument, or prevent its passage through the structure? But the fundamental proposition of the admirers of this agent is that, as veratrum viride does control the heart's action, it is for *that reason* a specific in pneumonia; and hence, as the erroneousness of this doctrine has been clearly demonstrated, it follows that it does not possess the marvellous virtues attributed to it; and, that he who relies upon it to the exclusion of more appropriate remedies, trusts to a rope of sand and a broken reed.

It may be urged that through the disturbance of the circulation is no part of the original disease, it immediately incorporates itself so intimately with the existing affection as to become practically assimilated, and to furnish an indication of the most positive character, in the treatment adopted for the relief of the patient. This may be true, and if veratrum viride be useful at all, it is in this connexion and to the extent of the injury done the system by the superinduction of excessive arterial action. Under such circumstances, we would employ it as an assistant to the *remedies used for the cure of the pneumonia*, provided the patient could be watched carefully by a physician, and there was no evidence of gastric irritability.

We say we would try it in this contingency, not because of any certain and infallible remedial properties possessed by it; not that the principles of a sound pathology would demonstrate the propriety of its administration; but with the hope that the case under treatment, might be one of those exceptionable instances in which good is accomplished by it, in a manner so mysterious

as to defy the most accurate scientific investigation. We would use it, not as a substitute for other remedies, but as an aid to them; not to cure the disease, but to mitigate one of its symptoms; not as a *specific* but as a *locumntenens*, until other and more appropriate agents could be resorted to; not to the exclusion of the lancet, purgatives, expectorants, diaphoretics, but as a means of rendering them more potent and available.

We have tried this remedy freely, and we must say that though in some cases it has done well, it has repeatedly disappointed our expectations; irritating the stomach excessively in many instances, depressing the patient almost beyond the point of reaction in others, and frequently producing no appreciable impression upon the circulatory system. We have repeatedly known the fever to *rise* and to *decline* contemporaneously with the administration of Norwood's own tincture, when the most favorable circumstances seemingly existed for a proper trial of the medicine; and we have learned from other physicians of extensive practice, that they have had a similar experience with this "great specific."

We remarked above that the exhibition of Veratum Viride was not demanded by any principle of sound pathology, and we beg leave to explain this assertion before concluding.

In the *first* place, it must be admitted that the heart has an action *sui generis*; that the nerves which excite its contractions are to a great extent independent and isolated, and that the activity of its functions is influenced more by intrinsic than extrinsic causes. These things being true, it follows that when that organ manifests any unnatural and continued perturbation, it is fair to conclude that it has been thus excited by means of some abnormal condition of the fluid which is peculiar to it, and not through the general system, unless some positive and appreciable reason presents itself for this conclusion. We know also, that in all diseased conditions of the lungs, the process of blood purification is not properly performed, and that the circulating fluid is thus left in that condition which renders it stimulating to the organ through which it incessantly flows. Now, if the arterial excitement of pneumonia was due simply to that increase of the heart's action which results either from sympathy, or from a general

disturbance of the nervous system, it might be easily demonstrated that a remedy acting as a sedative upon that organ exercised a curative influence upon the disease itself. But, on the other hand, when the heart is disturbed because of an intrinsic and peculiar cause—when its eccentricities result from an impression made upon it by an abnormal condition of the fluid which it contains—when its unnatural activity is due exclusively to the local irritation of a continuous current of impure blood, how can it be possible for an agent which simply deprives the organ of its responsive and reactionary power, without abating the intensity of the stimulus itself, to affect a cure of that pathological condition of the pulmonary tissue whereby the blood is vitiated? And yet the advocates of veratrum as a "substitute" for other more popular remedies, involve themselves necessarily in the absurdity of correcting this abnormal condition of the circulatory fluid, and relieving the inflamed lung, by means of a remedy which simply controls the heart's action and quiets arterial excitement.

Again, it is affirmed that veratrum viride, by restraining the movements of the heart, lessens the quantity of blood sent to the lungs, and thus indirectly cures the disease. Now it is evident that nothing is meant by this save that the congestion incident to the local inflammation is relieved by diminishing the supply of blood sent to the suffering organ; and at the first view, there seems to be something plausible in the idea. A slight examination, however, will prove it to be utterly fallacious, as can be shown in a few words. Congestion results either from the supply of an unusual amount of blood by means of the arteries, or from a concentration of that fluid because of the inability of the veins to remove it with sufficient rapidity. It is produced either by having too much blood *sent* to a particular locality, or too little carried away from it. It is, in fact, an interruption of the normal equilibrium between the functions of the arteries and the veins, producing an excessive concentration, or an unnatural accumulation of the sanguineous current in a given part. This being admitted, it follows that an agent which paralyzes the heart, not only lessens the amount of blood *sent out* by the pulmonary artery, but diminishes the quantity *returned* by the pul-

monary vein, and leaves the lungs themselves precisely in the same state of congestion as existed previous to its employment.

It thus becomes evident that the teachings of a sound pathological philosophy do not demand the employment of veratrum viride in pneumonia, as a "substitute" for the lancet and such other means as are of known utility in the treatment of that structural lesion which is the essential feature of the disease: but on the other hand, that both reason and experience unite in proclaiming the utter folly of an indiscriminate and exclusive employment of so unreliable a remedy in one of the most dangerous maladies that "flesh is heir to."

We had intended to speak of Dr. Norwood in this connexion, but will reserve a discussion of his claims to the respect of the profession for another number, when the subject of medical huckstering will be examined in all of its details.

In conclusion we will say that our opinion of veratrum viride is simply this: it bears about the same relation to the proper treatment of pneumonia, as the slight cord which the sailor first throws ashore to facilitate the landing of his hauser, does to the huge ropes which bind the mighty ship to her landing place in defiance of the rushing tide, or the raging storm.

"TILDEN & COMPANY'S BOOK OF FORMULÆ."

We are under obligations to the publishers, for this valuable Compendium of Therapeutical Science. It is well printed, conveniently arranged, and prepared from the most reliable sources; so that it is in fact all that can be desired in a book of its character. We have never been inclined to unite in the war which some have made upon Tilden & Co.; because from our limited acquaintance with their "preparations," we consider them entirely reliable; whilst from the liberal manner in which they have patronized the orthodox journals of the country, they have really done the cause of medical science important service. Messrs. Tilden & Co. have been mainly instrumental in promulgating the modern idea of consulting the palate in the preparation of medicines, and of rendering them agreeable to the taste: thus

dissipating the prejudices against the profession, which have rendered the very name of "Doctor" a synonyme for unpleasant reminiscences and nauseating anticipations, and converting the aphysician into sort of St. Nicholas, the Patron Saint of bon bons, even in the estimation of all the spoilt children in the country.

To those who have to put up their own prescriptions, this House offers peculiar advantages, for the reason that it enables them to procure nearly all of their medicines in the form of pills, prepared for immediate exhibition. This is a great desideratum, especially to country practitioners, who are compelled to be their own apothecaries, and whose time is chiefly consumed in actual practice.

In conclusion, we beg leave to recommend this book to the favorable consideration of our readers.

We have received several other books, for which we are under obligations, and will notice them at another time.

PRACTICE.

HEMATOPHOBIA.

A Historical Sketch. With special reference to the Treatment of Pneumonia. By George W. Balfour, M. D.

"Croit-on qu'il soit absolument indifferent de faire subir à un malade une perte considerable de sang qu'on aurait pu lui éviter? Nulle personne n'oserait soutenir une pareille proposition—elle repugne à la raison."—GRISOLLE.

"Difficillimum adgredior laborem—et exitum vix promitto qui lectori satis faciat."—HALLER.

ELEVEN years ago, when I had the honor of directing the attention of the Medico-Chirurgical Society of this city to the fact that inflammation, and pneumonia in particular, did not require for its successful treatment the use of any of those so-called heroic remedies, particularly blood-letting, which were then considered necessary, I was met by the retort, that however pneumonia might comport itself in Vienna, the scene whence my illustrations were drawn, it certainly required blood-letting in

Edinburgh. But time, the test of all things, has proved the truth of my proposition, and not now in Edinburgh any more than in Vienna, is venesection proposed as a remedy for pneumonia. The cause of this important change in the therapeutics in inflammation has been differently explained. One party alleges that an improved method of diagnosis, corrected by an advanced knowledge of pathology, has taught us to treat diseases, and especially pneumonia, better and more successfully than our fore-fathers; while another suggests that the type of disease has changed, and as pneumonia is no longer the virulent disease it was, it no longer requires the same heroic remedies. A more extended historical inquiry will, I think, induce the reflection that this enlightened practice has been originated by neither of these circumstances, but has been forced on all alike by a successful empiricism, whose success alike now and in bygone ages, and whose perfect agreement not only with the advanced pathology of to-day, but also with that of a far earlier date, proves not more the eternal regularity of nature, than the unchangeable certainty of the fundamental principles of our art. For history teaches us that Hematophobia is no new medical whim—no nineteenth century fallacy of the faculty, it points to the far off verge of our medical horizon, where, side by side with those brilliant luminaries which yet irradiate our medical world, we see this star of heresy—if heresy it be—arise; and still, as years roll on, and men change and opinions become modified, we find the same fundamental theories inwoven with and influencing our medical practice, the same bitter controversies raging; one party lauding blood-letting as the only remedy for every ill, and counting their triumphs by their bleedings; another looking on it as a source of much evil, and seeking even to banish it altogether from medicine.

It may not be possible to trace, in one unbroken line, the connection between the Hematophobists of the present day and those of early history, my object shall be sufficiently attained, if I succeed in showing, that men of undying reputation have, in all ages, successfully practised and maintained the non-necessity for blood-letting in acute diseases, side by side with those holding diametrically opposite views, showing clearly the question to be

one of opinion, and not of principle; while I also hope to be able to show, that the earliest pathological reasons for not bleeding are fundamentally the same with those urged now-a-days. I need not go back to those twilight ages, when, however skillful individual physicians may have been, they had as yet no fixed principles to guide them; and their practice, if we may judge from the votive tablets of the Esculapian temples of even a much later date, must have been founded on the rudest guess-work. Pythagoras was the first to attempt to unite the scattered facts of medicine with the whole realm of thought and knowledge into one vast philosophic system. Viewing the microcosm—man—as but an epitome of the macrocosm—the universe—he regarded the diseases of the one as analogous to the storms of the other, and both as depending on the strife of the four sacred elements of which they were composed. Placing the seat of the soul and of life itself in the blood, he denounced blood-letting as a needless waste of life, and in this was followed by a long line of distinguished disciples, from Empedocles to Chrysippus of Cnidus, whose disciple, Eudoxus, was the teacher of the world-renowned Erasistratus; perhaps the earliest human anatomist, Erasistratus was also a wise physician, and as such set his face against the monstrous polypharmacy of his day; asserting that the skilful use of a few simple remedies was infinitely preferable to the random hit of a compound mixture; reverence for the pythagorean precepts of his master induced in him an abhorrence of blood-letting, which he was the first to sustain by pathological reasons, and to support by the statistics of his practice; opposed in this matter to most physicians of his day, he had the honor to found a school which transmitted his opinions and his practice down to the time of Galen himself, more than 400 years, and counted among its members many whose names are well known to fame. At Rome, in the second century, the followers of Erasistratus were so numerous and distinguished, that it was personal, quite as much as abstract scientific controversy, that prompted Galen to write his celebrated thesis, "De venæ sectione—adversus Erasistratum." Yet even this powerful appeal, fortified by the no less powerful example of him who has been styled the Prince of physicians, proved insufficient to annihilate the anti-venesec-

tionists, for one of the few distinguished names we yet read of e'er the long night of science settled down on the world, is that of Jacobus Psychrestus, archiator to Leo the Thracian, a foe to bleeding, and withal so successful in his practice, that his adoring patients believed that the soul of Æsculapius resided in him. We see then that from the time, when under Pythagoras, physicians first became philosophers, down to that night of science which followed the fall of Rome, the practice of not bleeding never wanted distinguished expositors, who adhered to it chiefly as a correct logical deduction from the Pythagorean apophthegm. that the blood is the seat of life. A dogma no less physiologically correct, whether with Moses, Pythagoras, and John Hunter, we state it as a simple fact,—paraphrase it with Pliny and Van Helmont, in saying that the blood is inseparably connected with the vital spirits, or adopt the modern version of this paraphrase, and say with Dr. Bennett, that the blood is a fluid imperatively necessary for those nutritive changes—physiological and pathological,—which constitute life. But Erasistratus went yet further; he not only reprehended the danger of blood-letting, but he argued that it must be useless, inasmuch as the abstraction of more fluid blood from the veins, could not affect that which had already escaped into the arteries, and there coagulated, and which by disturbing the march of the pneuma, was the cause of the fever which existed, but that the removal of this coagulum (exudation) must be trusted to the powers of nature, aided by a rigid diet, a statement, which, considering the time it was made, more than 2,000 years ago, and the limited knowledge of anatomy and physiology then possessed, is in wonderful unison with what are now the received doctrines respecting the treatment of exudation. The contrast to all this is to be found in the origin of blood-letting, which can boast of no such philosophic source. Setting aside, as absurd and irrelevant, Pliny's fable of the Hippopotamus, the first recorded instance of venesection is the haphazard but lucky hit of Podalirius, and when we remember his great reward, and the propensity of mankind, when in doubt, rather to be active than passive, we can scarce wonder at the rapid and wide spread of the practice of venesection. Hippocrates, our earliest medical author, nowhere alludes to it as a re-

cent invention, but rather gives reason to infer that it had been long in use. From his writings has been deduced the theory, that the therapeutical use of blood-letting was founded on those critical hemorrhages which sometimes precede the crisis in acute diseases, early venesection being propounded as a mode of anticipating the natural evacuation, and hastening the crisis, cutting short the disease,—a most plausible idea, but unfortunately devoid of either logical or pathological sequence. 1st, Because all that these natural hemorrhages prove, is, that at a certain period of the disease, in some few cases, the vessels of the nostril or rectum are so engorged as to rupture; but not that there is any necessary connection between the bleeding and the crisis, inasmuch as many—nay most—crises take place without it. 2d. Although a necessary connection between the hemorrhage and the crisis were proved, it does not follow that it would be according to sound pathology to interfere with a critical evacuation or to attempt to replace it by another, least of all by one which has no power to avert or arrest a natural hemorrhage, particularly of this character, as is shown by its occurrence just as often in those who have been bled as in those who have not. There is nothing in the early history of medicine to lead us to suppose that bleeding was the remedy, "par excellence," for inflammation in general, or for pneumonia in particular; on the contrary, not only in the writings of those I have already mentioned as avoiders of bleeding, but even in those of Hippocrates himself, many cases of pneumonia, pleurisy, etc., are related, in which there is no mention of blood-letting. Asclepiades, active enough in general, never bled in pneumonia; and even Celsus, who abused bleeding so far as to employ it in cachexias, was very sober in its employment in thoracic inflammations. Still blood-letting, though not as yet appropriated as the best or exclusive treatment of inflammation, was employed sufficiently often by one class of medical men, to constitute it a distinguishing mark between them and that other class I have already described. These bleeders and non-bleeders lived side by side, and their names have descended together to these later days, as alike famous. Chrysippus flourished about the time of the third Hippocrates, and was the cotemporary of Praxagoras of Cos, the discoverer

of the pulse and its indication in disease, and who laid down certain rules for the proper practice of bleeding. Praxagoras' pupil, Herophilus, was the cotemporary of Erasistratus; and, like him, was privileged to found a school, which transmitted his doctrines and his method of treatment, including the practice of bleeding, down to the time of Galen, the great venesectionist, whose practice and writings form the most elaborate defence of bleeding the world has yet seen, and were still alike powerless to convince or convert the opposite party.

In the long night of science which followed the downfall of Rome, medicine took refuge among the Arabs, who seem to have resolved in the cycle of Greek opinions; never very fond of bleeding, their mode of practising it was peculiar, for regarding it as unfavorable to coction, and as a mere evacuation, they did not practice it during the increment of the fever; while this continued, the patient was kept forcibly awake, but when it lulled, and the crisis approached, he was bled and allowed to sleep, and no doubt the weary wretches hailed the lancet as the divinest boon of heaven to man.

After the rebirth of science in the sixteenth century, opinions continued to be much divided respecting blood-letting, some regarding it as indispensible, others assuming its occasional necessity, and a third party rejecting it altogether. One of the most distinguished of the latter party was Van Helmont, born at Brussels in 1577; regarding plethora and congestion as errors of his archæus, and the blood itself as free from blame, he saw no good to be attained by its detraction, more especially as exudation could not be thereby hindered, nor could it, once occurred, be thus evacuated through the vein; moreover, he pointed out the serious injury that might arise by lessening the mass of vital spirits circulating with the blood, and clearly demonstrated the evils consequent on over-bleeding. Van Helmont's warning voice had scarcely died away, when Lucas Antonius Portius published his remarkable work, "*De Sanguinis Missione*," in which, in a series of imaginary dialogues between Erasistratus, Willis, Galen, and Van Helmont, the subject is viewed in all its bearings, and the conclusions drawn, that blood-letting is no certain remedy for any disease; that its omission is never a cause of

death, while many have died from the effects of blood-letting alone; lastly, that it evacuates no precipitate or materies morbi. is of no service where there is any precipitate or coagulum (exudation) in any part of the body, corrects no humours, and is of necessity followed by no certain result, except that the quantity left is lessened, that therefore it should never be employed except where from sudden afflux of blood to a noble part the integrity of its vessels is threatened. Arguments and conclusions as true now as they were 200 years ago, and which were neither taught to Protius by advanced pathology, nor forced upon him by any change of type, but wrought out for himself by interrogating nature in the true spirit of Baconian philosophy. The promulgation of the discovery of the circulation of the blood by Harvey, in 1628, occasioned the construction of various hydraulic theories of disease and its treatment; hence the torrents of diluents with which Bontekoe inundated his patients; hence, too, the sanguinary fury which Botalli exercised, whose practice does not more astonish by its boldness than by the success which crowned it. Unconvinced and unconverted the anti-venesectionists found no mouthpiece for nearly a century, and then in the person of a veterinarian, Herr Wolfstein, who, placing with Pythagoras and John Hunter, the seat of life in the blood, and regarding with Stahl, inflammations and fevers as salutary efforts of nature, rejected blood-letting entirely from their treatment.

Sallaba, his opponent, attempted to defend the system of Stoll, his master, by translating and annotating Galen's celebrated thesis, De venæ Sectione, etc.; but, finding this to be inefficient, he boldly attempted to compromise the matter, by declaring both Wolfstein and Stoll to be right, and that the reason why that could be, must be sought for in the varying yet constant influence of the season on the epidemic constitution—in change of type in short.

But the case admits of no such compromise. It is true, that Sydenham is currently quoted as an authority for asthenic epidemics of pleurisy; it is equally certain, that from the state of pathology in his time, he was not prepared to make any nicely accurate diagnosis between true pneumonia and pneumo-typhus; and his own writings bear me out in the assertion, that it is to the latter disease and not the former that he refers; for, in

in speaking of the opinion, current even in his day, that in some years pleurisy is found so malignant as not to bear its usual bleedings, he expressly says, that "true and essential pleurisy, which runs rife under all constitutions of all years, will tolerate a repetition of venesections. When, however, it happens, as it sometimes does, that the *proper epidemic fever of the year*, from some sudden alteration in the manifest qualities of the atmosphere, deposits the morbific matter on the lungs or pleura (the fever remaining nevertheless the same)—in such a case, I say, that although venesection may be allowed in an extreme form of the symptom in question, the general rule must be, that the bleeding be apportioned to the fever that generates the symptom, rather than to the symptom itself, since it is with the fever that the symptom either stands or falls." And it is certainly a remarkable corroboration of this view of the matter, that those other epidemics which have been classed along with his as decided examples of change of type in the pneumonia of former days, and of which we possess full accounts, bear at least a close resemblance to what would now-a-days be classed as pnemotyphus, and have nothing in common with those numerous cases which I have seen treated without blood-letting, under the care of Fleishman, Skoda, and myself, except cough and difficult breathing, symptoms more or less common to a whole host of diseases. For instance, in the so-called epidemic of asthenic pleurisy at Edinburgh in 1736, the disease commenced by bilious vomiting, pricking pains about the lower ribs, difficult breathing and slight cough; the blood, when drawn, was brownish, yellowish, or greenish, and hardly coagulated. While in the famous epidemic described by Huxham, which occurred in 1745–6, the pulse was small and feeble, the fever nervous in character, and attended by tremors, subsultus tendinum, and sweatings; there was atra-bilious diarrhœa, black tongue, and coma, while the blood clot was seldom buffy, mostly florid and loose. Both of these epidemics, then, in the accompanying phenomena, and the state of the blood, convey at once the impression that they are no true pneumoniæ, and differ widely from what has been described as such in all time. Such epidemics have no bearing on the treatment of true pneumonia, having been long known and

acknowledged not to be tolerant of blood-letting, seeming even to be referred to by Hippocrates, when he says, that "pains in the side that are moderate, in fevers without the eminent signs, are hurt by blood-letting, more especially if there be an aversion to food, and a swelling of the hypochondrium or liver."

As if to show how little theories regarding type had to do with the use or non-use of blood-letting as a general treatment, we find Bordeu, writing about the same time as Huxham, remarking that towns were divided between the rival claims of the physician, the friend of bleeding, and the physician its foe; Izés making a large fortune at Paris by the number of his daily bleedings, while at that very time Jussieu almost never bled.

In the beginning of this century, Dumangin of La Charité, almost never bled for pneumonia, yet his success was at least equal to that of Corvisart, who bled largely. Laennec thought he had annihilated the mortality of pneumonia, by large doses of tartar emetic, at the very time that Gregory thought that large bleedings could alone cope with so formidable a disease; while Bouillaud, then as now, placed implicit confidence in his *coup sûr coup* method of bleeding; and Alison taught, that in the treatment of pneumonia "uncomplicated and recognised from its commencement, the utmost confidence may be placed in general blood-letting, which should always be large," etc., at the very time that Skoda taught that the tendency of pneumonia was not to dissolution but to resolution, and that rapid restoration to health was best promoted by withholding those heroic remedies generally prescribed, and amongst them blood-letting. Experience had taught him this, not change of type; but a few years previously he had been a staunch venesectionist; at the time I first knew him most of his colleagues were so still. His nearest neighbor in the hospital bled largely and freely, and was quite satisfied with the results obtained. Brought up in the professional tenets of one so respected and loved as Dr. Alison, I can never forget the horror with which I at first regarded the practice of Skoda, the incredulity with which I listened to his explanations, or my astonishment when extended observation had convinced me of the correctness of his conclusions, the truth of which eleven years of private practice in this country have but tended to confirm.

True pneumonia has been, in my experience, a comparatively rare disease, and I have had under my care only seventeen cases, all of which recovered; all bore a strong resemblance to Cullen's type, and would, I believe, have borne blood-letting well; that they would have therefore recovered better is impossible: that they would have recovered quicker is unlikely, as, "after full or repeated blood-letting, convalescence is generally slow," forming a striking contrast to the rapid recovery of those who have never been bled. I may say, then, that my own personal experience has not led me to suppose that the practice of not bleeding in pneumonia has been brought about by any change of type; neither has my reading given me any reason to think that there has been any wave or waves of changing type, but rather to agree with Dr. Duncan that, as far as regards inflammation at least, such "changes exist only in the imagination of physicians," and that from the time of Pythagoras downwards to the present, the non-bleeding treatment of pneumonia has been in all ages at least as successful as its opposite; has seldom, if ever, wanted an exponent, and has been practised by quite as many of the "clariores medici." Modern pathology has no doubt rectified many mistakes into which a refined physical diagnosis had led physicians, and by clearly explaining the *modus operandi* of the treatment, has rendered it more easily adopted by a certain class of minds; just as the spread of civilization, its vices, its malaria, and overwork of both body and mind, has rendered a proportion at least, of our population, less tolerant of blood-letting in disease than our less refined forefathers, and so enabled another class of minds more easily to adopt the non-bleeding system. Yet the whole course of medical history tends to teach us, that though blood-letting has been practised in all ages, it has been necessary in none. Its opponents have clearly shown that it can correct no humors, evacuate no materies morbi, and has no influence over exudation; while those of its advocates who have most ably investigated its use, have distinctly proved that it cannot cut short the disease, prevent exudation, or jugulate any symptom; while so little influence has it over those phenomena which may be supposed to precede inflammation, that it is precisely in the case of those who have lost much blood previous to the occurrence of inflammation

that we have most to dread a fatal termination; and in commenting on a fatal case of this character, one of the greatest clinical teachers of this or any other age commences by the strong assertion, that the first consideration suggested by it is, "the tendency which excessive depletion produces to the formation of inflammation." Moreover, the undoubted success which has been attained by Hahnemann and his followers in the treatment of acute diseases, has reduced the argument to a dilemma, which is this: Either the homœpathic globules are truly active and energetic remedies, or the partisans of bleeding have been grossly mistaken in the fancied utility of their favorite remedy. Both of the propositions involved in this complex syllogism have been supported by similarly inconclusive arguments from the "post" to the "propter," and the maintainers of both have ignored the existence of many of the "root-truths" of our science; and amongst the rest of this, that "cuncta sublunaria quæ non sunt morti, sunt saltem termino subjecta."

In this rude sketch, I have endeavored to deduce the present state of opinions in practical medicine from the history of the past, and to show that the "new does not root the old up, but grows organically out of it." We are not wiser than our forefathers, only more advanced. Our fundamental principles are still the same; and if we apply them more skilfully, it is only because the diffuse vague light of their day has been collected by a hundred scientific mirrors, and brought to bear on each separate point. Only because in our day the mournful wail of Baglivi has been answered by the glad Eureka of Laennec; and chiefly because the greatest practical error of our day has taught us the power and extent of the truth it abuses.—*Edinburg Med. Journal.*

HEART SOUNDS.

Dr. Austin Flint thus concludes an interesing paper on the Clinical Study of the Heart Sounds, in the New Orleans Med. News and Hop. Gazette:—

The practical points pertaining to the diagnostic significance of the abnormal modifications of the heart-sounds, are embodied

in the following series of propositions: 1. Increased intensity of the first sound, the two elements composing this sound being affected equally, is a sign of excited muscular action of the heart, and is observed in cases of functional disorder without organic disease.

2. Increased intensity of the element of impulsion in the first sound, the intensity of the valvular element not being proportionately augmented, if at all, is a sign of hypertrophy affecting the left ventricle.

3. Diminished intensity of the element of impulsion is a sign of weakened muscular power of the left ventricle, either from organic affections, such as dilatation, or fatty degeneration, or from functional debility of the organ. Cases are to be excluded in which, from the presence of liquid effusion in the pericardium or pleura, or from emphysema, the heart is prevented from coming into contact with the thoracic walls.

4. Abnormal intensity of the mitral valvular element of the first sound, is a sign of excited muscular action of the heart, and is accompanied by a corresponding increase of the intensity of the element of impulsion, as stated in prop. 1st. Abnormal weakness and suppression of this element, the element of impulsion retaining or exceeding its normal intensity, are signs of more or less injury of the mitral valves. A murmur referable to the mitral orifice co-exists in the vast majority of cases. Notwithstanding the murmur, if the valvular element of the first sound referable to the mitral valves retain nearly or quite its normal intensity, the valves are not seriously damaged. In judging of the normal intensity of the mitral valvular element, it may be compared with the sound emanating from the tricuspid valves.

5. Abnormal intensity of the valvular element referable to the tricuspid valves, is a sign of hypertrophy of the right ventricle, and is generally associated with diminished intensity of the valvular element referable to the mitral valves. Abnormal weakness of the tricuspid valvular element is not available as a physical sign of disease.

6. A *positive* increase of the intensity of the pulmonic second sound of the heart, is a sign of hypertrophy of the right ventricle,

in the majority of cases dependent on mitral contraction or insufficiency, or both. A *relative* increase of this sound, *i. e.*, as compared with the aortic second sound, may result from abnormal feebleness of the aortic sound, due to mitral obstruction or regurgitation.

7. Abnormal intensity of the aortic second sound, is not a sign of much importance. But non-diminution of its intensity, in cases in which a murmur referable to the aorta is present, is a sign of much value, indicating that, although aortic lesions exist, the integrity of the valves is not seriously compromised.

8. Diminished intensity of the aortic second sound, in cases in which a murmur referable to the aorta is present, is a sign that the aortic valves are damaged, provided that neither mitral obstruction nor regurgitation exists, an effect of the latter being abnormal feebleness of this sound. If the diminished intensity of the aortic sound be due to injury of the valves of the aorta, there will be likely to be present an aortic regurgitant murmur, in other words, a diastolic murmur referable to the aorta.

9. In cases in which a diastolic murmur is present, referable either to the direct current of blood through the mitral orifice, or to aortic regurgitation, a normal intensity of the aortic second sound is evidence that the lesions giving rise to the murmur are seated at the mitral orifice.

REMARKS ON LEECHES.

By Frederick Stearns.

A CONSTANT supply of healthy and vigorous foreign varieties of these animals is considered, by practitioners in those districts where they can be afforded cheaply, to be an invaluable aid in practice. The cheapening of them in this country, where they have hitherto borne so high a price, we must consider no small benefit to the community. To the enterprise and experience of Mr. Witte, of New York, (prominent in that market for the past twenty-five years as an importer of leeches,) is due the credit for first accomplishing the above benefits, as he now offers, through his own house and those of his agents, fresh and healthy Swedish and Hungarian leeches at prices which will bring them within the reach of all requiring their aid.

In view of an increased use of leeches in the interior, where they are now employed to a limited extent only, it has been suggested to us to state, for the benefit of our readers who may not be familiar with their use, the most practicable methods of preserving and applying them.

Leeches are sent out by dealers usually in boxes filled with marsh-sod and clay. It is best that they should be kept in this; all the care they then require is to occasionally moisten the earth, and remove the dead or sickly leeches, if there be any. The box should be kept in a moderately cool cellar. If more convenient to keep them in water, a suitable jar should be provided, in the cover of which are fine perforations, to allow of a circulation of air. Rain water should be employed, and changed daily in summer, though less often will answer in winter, always observing to remove dead and sickly ones, in order to preserve the rest, as the diseases affecting leeches are mostly epidemic in their character.

It is necessary, in applying leeches, that the part to be leeched should be perfectly clean and free from smell of medicine or perspiration. Handle the leeches always carefully, and with clean hands. Having determined upon the number to be used, place them in a cupping-glass, wine-glass, or even in the bottom part of a chip pill-box, and invert it over the part affected. It is often desirable to partly fill the cupping-glass with water, as they will bite more readily when covered by it. When they have attached themselves, the cup can be gently removed, and the part surrounded by a soft cloth, which will absorb the moisture and blood, and catch the leeches when they drop off.

It often occurs that leeches, from some unknown cause, cannot be made to bite by ordinary means. We have found that with such, the best success attends a slight scarification of the affected part, and the subsequent application of the leech, by holding it in a soft dry towel, and directing its head to the scarified part, withdrawing it a little as it reaches it, thus compelling it to fix thereat. Vinegar, milk, molasses, etc., are useless and unnecessary to incite leeches to bite.

For the application of leeches to the gums, and to the neck of the uterus, tubes are made, by means of which the leech is compelled to attach itself to any spot desired.

Pereira states that "several circumstances affect the fixing of leeches; as the condition of the animal, whether healthy or otherwise; the nature or condition of the part to which it is applied; thus, leeches will not readily attach themselves to the soles of the feet or the palm of the hands, or to the hairy parts—the presence of grease, vinegar, salt, and some other substances will prevent them from biting. Durheims says, leeches will not bite those under the influence of sulphur, on account of the evolution of sulphuretted hydrogen by the skin. The effluvia or vapors of the room, as the fumes of tobacco, sulphur, vinegar, will prevent their biting, or even cause them suddenly to fall off."

If a flow of blood greater than that swallowed by the leech is desired, it must be excited, after the leech drops off, by warm fomentations or poultices.

The flow of blood from leech-bites is best checked by compression with lint, or the introduction of cone-shaped plugs of it into the wound, by means of a probe; the usual hæmostatics may also be used.

It is not recommended that leeches once used be preserved; but if they are kept for future use, they should not be stripped between the fingers nor placed upon salt, (the first kills them outright, and the second blisters them,) but they should be placed in a jar, apart from those not used, changing the water occasionally, and when they have digested the blood they are gorged with, they will generally bite readily again.

It is thought by many that the bite of a leech once used for bleeding a person suffering from an infectious disease may be the means of communicating it to others.—*Peninsular and Independent.*

APOPLECTIC PRE-DISPOSITION.

Marshal Hall says that the indications in the management of such cases are:—

1. To avoid all emotion, or mental effort, or excitement.
2. To preserve the stomach and intestines free from load or oppression.

3. To act on *all* the secretions, especially those of the liver, the kidney, the skin.

4. To combine abundance of walking exercise with early hours; frictions, with ablutions of the general surface, warmth and dryness of the feet, &c.

It is astonishing to see how much has been effected in many cases apparently the most untoward, by a just combination of. and perseverance in these remedies.

THE ANTAGONISM OF OPIUM AND QUINIA.

By M. Gubler.

[Translated by J. P. Barbot, M. D.]

M. Gubler read a paper before the *Société Médicale des Hôpitaux de Paris,* on the antagonism between Opium and Sulphate of Quinia, of which the following is a synopsis condensed from the summary published in "*L'Union Médicale,*" of May 20, 1858. Being unwell himself, M. Gubler took sulph. quinia in 0.50 centigrammes doses only, and was struck with the fact that they produced humming in the left ear only, although his hearing is equally good on both sides. This peculiar effect occurred three days in succession. As at that time he suffered from headache, which was most violent on the right side—on which side it is always greatest in M. G., he was led to suppose that the evident congestion on the right side, neutralized the effect of the quinia, which effect M. G. considered due to the privation of the brain of blood, (*anémier l'encéphale décongestionner le cerveau*) the removal of congestion of the brain. M. G. having recovered his health, resumed his attendance in the wards of the Hospital. He there saw a case of acute articular rheumatism in which large doses of sulph. quinia and opium had been administered for several days without success. M. G. continued the dose of sulph. quinia—*i. e.* 1 gramme 50 centigrammes with 0.25 centigrammes of extract of opium. Finding that the peculiar therapeutical effects of both remedies were entirely wanting he increased the dose of sulph. quinia and diminished that of the opiate, without, however any better success.

Lastly, he left out the opium altogether, and gave one gramme

50 centigrammes of sulph. quinia alone, which produced in the most marked manner, the peculiar remedial effects of that drug. And from that time the rheumatism diminished rapidly and markedly. This and other subsequent cases of the same nature confirmed him in his belief that opium was antagonistical to sulph. quinia or, so to speak, its antidote.

M. Gubler, enunciates his particular views of the *modus operandi* of opium and sulph. quinia. According to him, opium produces congestion and hyperæmia, while its antagonist, sulph. quinia, produces anæmia and dissipates congestion—(*anémie et décongestionne.*)

The following are the conclusions of M. Gubler: 1. Inversely to opium, which exalts organic action, producing sanguineous congestion and caloricity, sulph. of quinine acts on the nervous system, by condensing the forces there, in such a way as to arrest organic action, the source of waste, and to diminish as much as possible the afflux of blood to the inflamed parts. (*Sic.*)

2. This *modus operandi* once admitted, we can readily understand the innocuousness of sulphate of quinia in the cerebral symptoms of rheumatism, which symptoms recent experiments have already tended to show were not due to its use.

3. Moreover, the use of sulph. quinia is indicated in all the inflammatory forms of cerebral rheumatism; opium being serviceable in the nervous forms only, and in these, only when not complicated by fever.

4. Sulph. of quinine and opium, being antagonistic should not be given together.

5. These two remedies may be used as antidotes, to one another.

M. Guérard thought that sulph. quinia did "*décongestionner le cerveau,*" and stated in support of his opinion, that its use produced imminent syncope. Some years previously, while suffering from intermittent fever, he had taken large quantities of sulph. of quinia, sometimes for a month at a time, in a single dose daily. As long as he remained in the recumbent position he experienced no unpleasant sensation, but when sitting, syncope was imminent. He had seen a second similar case.

With respect to the antagonism of opium to sulph. of quinia,

he was the more ready to believe it, inasmuch as in his *thèse de concours* for the Chair of Therapeutics, he had shown that the effects of Medicines when isolated might be neutralized by combination; and had mentioned that M. Caventon had given strychnia combined with morphia, each in large doses, and that the effects of the combination had been greatly diminished. Substances which are poisonous by themselves, cease to be so when united.—*New Orleans Med. and Sur. Jour.*

We have made the above selection for the purpose of showing in what absurdities science sometimes involves her votaries, and to what extent theory may be contradicted by actual experience. For several years we have been in the habit of treating bilious fever with a preparation of quinine and opium, and have not only witnessed the simultaneous exhibition of their characteristic effects, but have repeatedly experienced them in our own person. That opium does act both as an anodyne and a narcotic, when the most decided cinchonism has been induced, is well known to every practitioner of medicine in the Southern States.

EDITOR.

EMPLOYMENT OF SUGAR IN THE DISEASES OF INFANTS, AND ITS UTILITY IN INTESTINAL CATARRH.

By Drs. Behrend and Sieber, of Berlin.

In the *Presse Medical Belge* is an interesting paper on the use of sugar in the diseases of infants, a portion of which we abstract. The authors refer to the writings of Sala, Pelletier, Hoffman, and many others in support of the utility of the remedy.

The ordinary cane sugar is employed with our general dietetics in consequence of its agreeable taste. During the last century many of the older authors spoke in high terms of the therapeutic action of sugar, and recognized in it many properties of utility in the treatment of divers maladies. In later times and after the prosecution of many physiological researches, and the presentation of their results, we are now taught that the opinions of the old physicians were well founded and rational. We now know that, by the reactions of this agent with the liquids of the stomach and intestines, it is transformed into lactic

and butyric acids direct. To the researches of Lehmann we are mainly indebted for the information we now possess, and are made cognizant of interesting and remarkable changes and effects on the animal economy from its agency and its mutative action on medicaments.

Without further prelude we will now cite two cases which came under our treatment some six years since, and which will serve to show what may rationally be expected from it as a therapeutic agent.

During the epidemic which prevailed in this country in 1851, and which manifested so much activity in the derangement of the intestinal functions, both in adult and in infant life—and attended with high febrile action—we had many opportunities for observing the salutary effects of the remedy.

A child three years of age, of a scrofulous habit, was seriously attacked with the prevailing disease. An intense fever declared itself at the outset, which was soon followed by copious diarrhœa, attended with violent colic pains, and soon afterward by excessive abdominal tenderness. An acute inflammation was manifest, which was combated with an antiphlogistic course, to which it soon yielded. The diarrhœa persisted, with great irritability of the stomach, and the expulsion of a light flocculent matter; a nutrient treatment was adopted to support the sinking patient, but all ingesta was rejected instantly, and it was easy to foresee that all the usual remedies in such cases would be applied in vain. The efforts at vomiting continued; the stools were mixed with mucous filaments slightly colored with bile, and at times streaked with blood; their odor was acid but not strong.

The child was now put upon sugar and water, which it ate with a ravenousness and voracity most remarkable. This peculiarity, and the apparent assurance it gave of adaptability in this case of intestinal catarrh, determined us, for the first time, to employ this method of treatment. To effect its exhibition in a convenient manner it was given in the form of pulv. blanc. sac., one half oz. slightly moistened with water, each hour. This treatment was continued four hours, and was tolerated. At night the same treatment was continued, the patient to have sweetened water whenever disposed to drink. No other medi-

cation was employed. On the fifth day the abdominal pains had ceased most completely; the diarrhœa still continued, but the stools were less copious and frequent, and contained fecal matters. The treatment was continued, with the addition of light nutrient fluids, which we now found feasible, and, as the patient recovered, beef tea was given. The treatment, for nine days, consisted of sugar in a humid state, and to its effects we are disposed to consider the cure attributable, and not to other medication.

Soon following the above case, another child, aged four years, was presented with the same disease. It had become very emaciated by the wasting diarrhœa, and, when first presented, was writhing with the violent colic pains attendant on the disease. The patient was placed upon the same treatment in all respects as the former, and at the end of five days the stomach would tolerate other light nutriment, followed by beef tea, as in the first case. In three weeks the cure was perfect. During the last two weeks the quantity of sugar administered was diminished daily.

These two cases go far to establish the value of the remedy as a therapeutic agent, and when we regard the opinions of the older writers upon this subject, it seems evident that it has long been a useful but neglected adjunct in the treatment of peculiar diseased conditions.—*Pacific Med. and Surg. Journal.*

SURGERY.

REMOVAL OF A CANCEROUS TUMOUR FROM BELOW THE TONGUE,

With some remarks on the Operative Surgery of the Tongue.

By John Paul, M.D., F.R.C.S.E., Surgeon to Gray's Hospital, Elgin.

Peter Bowie, æt. 57, was admitted into Gray's Hospital June 8, 1858, with a tumor under his tongue, extending from the lower jaw to the frænum linguæ, necessarily involving the sublingual gland, and pressing the tongue upwards. It had the cauliflower aspect very distinctly, and, on being pressed or handled, oozed out a little blood. To the feel it was solid, and its base was pretty deep. It was immoveably adherent to the jaw, or at least to the alveoli, for nearly two inches. It was

moveable in its other attachments. The front teeth were mostly out, those that remained being quite loose, from softening and absorption of their sockets. There was no enlargement of the sub-maxillary glands, nor infiltration of any of the surrounding tissues. The growth was evidently of a malignant character. The patient's general health was tolerably good; no doubt he was of intemperate habits, but in this respect he was improved of late. It was only ten weeks since he first began to feel some fullness in the part, so that the disease had been rapid in its progress. About this time he had severe pain in one of his front teeth, which was extracted. A slight lancinating pain, however, still remained—felt especially when speaking or swallowing. The gum became swollen and livid: and this condition of it not only continued, but increased.

Viewing the case, then, in all its bearings, the only procedure which held out any prospect of cure, or even of arresting in any degree the progress of the disease, was removal; although then no very satisfactory result could with certainty be relied on, such being the liability of malignant disease to return. But to avert consequences so horrible as the progress of such a disease in that locality would inevitably be, and ultimately so certainly fatal, I resolved on giving the patient the only available chance of escape from them. I proceeded, therefore, on the 12th of June, to remove the diseased structure in the following manner: I made an incision from the middle of the lip down to the lower border of the chin, and here a cross one, thus forming the letter T inverted. I then dissected back the flaps close to the bone, so far as to allow as much of it to be removed as appeared to be implicated in the disease. The bone was now notched on each side a little beyond where the disease was adherent to it, and divided by the bone pliers. The tongue, by means of a double ligature passed through its point, was pulled forcibly upwards and backwards by an assistant, when, grasping and pulling down the tumour, I dissected it out from its attachments, with the divided portion of the jaw fixed to it. The fibres of the muscles, to a considerable extent, coming from the os hyoides to the tongue, were of course removed, along with no inconsiderable portion of the floor of the mouth. Six vessels of large calibre

required to be tied, besides a branch of the facial divided in the cross external incision near the chin. So soon as the bleeding entirely ceased, the flaps were brought together, and kept in apposition by the twisted suture, and the hollow space between the lip and tongue filled with lint. There was but little blood lost during the operation. In about an hour, however, when reaction took place, there was some hemorrhage, which was easily stopped by additional plugging with pressure. After six hours there was no oozing. An irritating cough required a full opiate. Next day, he was doing well, only great difficulty in swallowing. On the 15th there was a little hemorrhage again from violent coughing. On the 17th, owing to some fœtor in the discharge, an attempt was made to remove the plugs of lint from the wound, which brought on hemorrhage; but it was readily controlled by plugging with lint soaked in the infusion of matico, and firm pressure. The plugs were not again interfered with for several days, when they were loosened by the discharge, and came away readily, and without further bleeding. The wound was now simply dressed with lint moistened in water. Cicatrization went on favorably; but, till it was complete, there was great difficulty in swallowing, owing to great inability to move the tongue, by which the first act of deglutition is in most part performed, by throwing the food into the pharynx. There was at one time a good deal of inflammation and suppuration about the end of the maxilla, on the right side; and in consequence of this there will be, although not to a great extent, some exfoliation of the bone. The cut end of the bone granulated and healed kindly on the opposite side. The flaps adhered by the first intention, with the exception of a small portion at the chin, which healed by granulation. The patient was discharged on the 26th July, being fully recovered in every respect from the effects of the operation, with the exception of the slight exfoliation that will take place from the bone, and the wound being healed more than a week.

On reviewing this case, I cannot resist alluding to the facility with which I was enabled to secure the divided arteries; and, in planning the operation, I had great misgivings on this point, because I was afraid that, as vessels of considerable size, especially the sub-lingual branches of the lingual artery, must unavoidably

be cut, there would be great difficulty in laying hold of them in the confined and hollow space in which they would be. This, however, was not the case, as they were tied with as much ease as if they had been on the face of a stump. The facility thus afforded me in tying the arteries was owing, I am confident, to the removal of the front of the maxilla, and from this the idea is suggested to my mind, that in cases of urgency, requiring the removal, either by ligature or excision, of any portion of the tongue, or of the entire organ, the same procedure may be advantageously had recourse to, because by it, I think, perfect command is given over the vessels of the tongue in any operative proceeding.

Judging, then, from the ease which I experienced in tying the vessels in the floor of the mouth in the case under consideration, I think it is not unreasonable to infer that, if the front of the jaw is removed, the tongue itself, or any portion of it, may be removed, and the vessels tied with the same ease. The practicability, at least, of accomplishing this is so strongly impressed upon my mind, that, if the operation be undertaken, there will be, I think, but little risk of failure.

It may at first sight appear appalling to remove a portion of the jaw in order to operate on the tongue; but if, by so doing, operations can be performed on it with less hazard to life and greater certainty to stay the progress of a horrible and fatal disease, appalling as it may be, I think it becomes justifiable when its object is to accomplish an end so important and so desirable. The mere removal of a portion of the jaw involves no consequences of serious import to life. It may be done with great rapidity, and made a painless operation by means of chloroform.

I may remark, that in the case detailed I did not use chloroform,—the use of it in operations of the mouth being a vexed question. No blood, however, was swallowed; and I am satisfied that it might have been used, not only with impunity in this respect, but with much comfort to the patient, in annulling the suffering of so painful an operation.

Danger of hemorrhage in excising cancerous tumors situated towards the root of the tongue, and even difficulty in surrounding them with ligatures, have ever been barriers to operative

interference. To obviate the one and the other, operations on the tongue have sometimes been performed through an incision from the symphisis to the os hyoides.

I shall quote from Chelius' Surgery this mode of operating, as laid down by Mr. South, the accomplished editor and translator of that work, in order to compare it with that which I have suggested.

"As Cloquet had previously opened the bottom of the mouth for the introduction of a ligature, so Mirault proceeded in a case, in which he had fruitlessly endeavored to find the lingual artery on one side, although he had taken it up, with difficulty on the other, after which the tumor diminished, but increased again. He made a cut from the chin to the tongue bone, directly in the space between the M. geniohyoidei, through which he pierced the tongue at the middle of its base, and surrounded the left half with a ligature, the ends of which hung down from the neck, and were there tied. Afterwards he tied the other half. If thus tied at two different times, the cancer may be cured without mortification of the tongue, which retains its shape and activity. According to Mirault, the cut into the bottom of the mouth is assisted, if the tongue be drawn well forward with a hook, and a needle curved sideways with a handle, like Desault's aneurysmal needle be thrust through the middle line of the tongue from above, downwards, so that its point protrude below, at the part where the tie is to be made; the one end of the thread is now to be held fast, the needle with the other end drawn back, and then the threads tied."

"With Mirault's agrees the practice of Regnoli for removal of the tongue. He made three cuts in the form of T from the lower edge of the point of the chin to the tongue bone, and on either side to the front edge of the M. masseter. The skin, cellular tissue, and M. platysma myoides were dissected off, a pointed straight bistoury thrust behind the chin from above downwards. the insertion of the M. geniohyoidei and genioglossi were cut through, and the mucous membrane of the mouth divided. With a button-ended bistoury, the insertions of the M. digastrici and mylohyoidei, and the mucous membrane of the mouth were now cut through up to the pillars of the soft palate. After tying a

few vessels, the tip of the tongue was seized with Museux's forceps, and drawn down to the lower opening, so that the whole tongue was seen on the front of the neck, and pulled well down with the fingers. Several ligatures were now applied with a long curved needle around the root of the tongue; the tongue cut off with a small pair of shears in front of the ligature; its stump returned into the cavity of the mouth, and the wound closed. Ice was put into the mouth to keep down the inflammation."

Mr. Arnott has also performed this operation successfully for a malignant tumour of the tongue of a girl of fifteen.

The plan of operating adopted here is, so far as I can judge, one of great difficulty in execution, and not unattended with hazard even in its performance; for, if the incisions are made to the pillars of the palatine arch, vessels must be cut which cannot easily be secured: and besides, the fact that, when the tongue is brought through the opening, it cannot be sufficiently under control to admit of excision and of ligature of the arteries; otherwise the substance of the tongue would not have been included in ligatures, and then cut off anterior to them, as was done. It cannot therefore, I think, be considered a legitimate operation, although urgency might lead to it if a better were not known.

If, then, by removal of the front of the jaw, such command of the tongue can be given to the surgeon as to enable him to operate on it with safety either by excision or ligature, I can see no reason why such a mode of procedure should not be generally adopted. It might probably be, in the meantime, unbecoming in me to be more decided as to the practicability of tying the arteries in operating on the tongue in the manner which I have pointed out, because no absolute or incontrovertible opinion can be given till it is tested on the living body. As yet, it only rests on inferential evidence on my part, formed from the facility of tying the arteries in Bowie's case, and since then, from performing and studying the operation on the dead body.

I find that, by mere division of the jaw at the symphysis, the cut ends of the bone may be separated very freely, at least three inches, which gives, no doubt, great command over the tongue; but there can be no doubt but that the removal of the front of the jaw will give much greater.

ELGIN, *August* 2, 1858.

TINCTURE OF URTICA IN BURNS AND SCALDS.

In the October (1857) number of the *Jour. de Chim. Med.*, it was noticed that burns were rapidly healed in America by the employment of the tincture of the small stinging nettle, (Urtica Urens,) which was prepared by infusing for some days in alcohol the plants cut into small pieces, and was applied by means of a saturated linen cloth to the burn, which then cicatrized rapidly. Justin Lukomski, a Russian practitioner, of the village of Bechui, in the Crimea, gives an interesting account of the employment of the tincture of the *Urtica dioica* in such a case. We transfer it to the pages of the *Monthly* as an account of an additional agent belonging to our own indigenous botany.

An infant had been left in care of a little girl ten years of age, during the absence of the mother. The girl laid the infant near the fire, (which the Tartars, not having stoves, make in their houses generally on the ground, under the chimney,) and was absent for a few minutes. The absence was sufficiently long for the child to place one of its feet upon the burning coals, and to receive a severe burn, and being too young to be able to move away, might have paid the penalty of its life for the imprudence of the mother and the girl, to whose charge she had been confided, if the latter had not rushed to her assistance on hearing the screaming. The toes, and a portion of the upper surface of the foot, had suffered most from the action of the fire; the epidermis had been nearly entirely removed; the exposed subjacient parts were much tumefied, in part, even disorganized, and very painful, so that the least touch would cause the child to scream. The rest of the foot was also swollen, red, and painful. Along the leg there were also some spots, red, swollen and painful, and a blister a little below the knee.

Happening to have at hand a tincture of *Urtica dioica* prepared of the fresh plant, he determined to employ it. Fearing, however, lest the application of alcohol to parts denuded of the skin might cause too much pain and increase the inflammation, he diluted a certain quantity of the tincture with double its volume of water. This mixture was shaken for some time in a bottle, and a linen rag being saturated with it, was placed on the injured parts. The rag was ordered to be moistened three

or four times a day with the diluted tincture without removing it, in order to give less pain to the infant. Two days after, the mother called on him again, begging him to give her some more of the tincture, and saying that the injured foot was already nearly cured; that there was no more tumefaction or redness, and that the denuded portions had begun to cicatrize. The affected parts in general were only slightly painful. As she had no more of the tincture, she covered the affected parts with hemp-seed oil, which, however, had produced some irritation, and was bringing back the redness, and even the pain. On examining the infant, he found that, notwithstanding the ill effects attributed by the mother to the hemp-seed oil, everything looked much better than when the child had been first seen by him. The dilute tincture was again employed. Four days afterwards the child had perfectly recovered; the nails had fallen off, but the burns had nearly entirely cicatrized; and in a short time afterwards but slight traces remained.

A cure so rapid, of a severe burn that would have required, by the means ordinarily employed, at least three times as much time, is well calculated to satisfy any one of the utility of the alcoholic tincture of the *Urtica* in the treatment of burns.—*American Med. Monthly.*

FACIAL NEURALGIA—CAUTERIZATION OF THE HELIX.

Our readers will perhaps remember the singular treatment proposed in Sciatique, which consisted in cauterizing the helix with iron at a white heat. However strange this process may appear, there can be offered in its favor a certain number of well established cures, and it is by no means abandoned by practitioners, although in truth the failures have been thus far quite as numerous as the successes. The same means have just been employed in facial neuralgia, by Dr. Texier, who has published in the Moniteur des Hopitaux, a communication on the subject. Dr. T. had seen the process applied in this affection by Professor Jobert de Lamballe, and he resolved to repeat it on the first occasion. A young woman had suffered for six weeks with intolerable pains on the right side of the head and in the lower

jaw; she had had no rest, and at times experienced inordinately painful exacerbations. M. Texier effected, with the instrument at a white heat, the cauterization of the helix at the moment when the pain was at its maximum. The patient uttered a cry and began to weep, then shaking her head as if to see whether she had been dreaming, she declared herself entirely free from pain. The cure was permanent.

Another young woman was for two months troubled with a tri-facial neuralgia on the left side, for the cure of which various expedients had been tried in vain. The pain in the jaw was so severe as to render mastication impossible, and she lived only upon soups and milk. The cauterization of the helix was quite as successful in this case as in the preceding.

A third observation gave precisely the same result. But M. Texier informs us that this process does not always succeed; very far from it, since with eight patients he effected only one cure. It seems that to apply the method with any confidence of success, the neuralgia should be fixed and without complications. Cauterization, reserved for cases in which the affection is, so to speak, idiopathic, without any particular character but a violent steady pain in the course of the trifacial, may become a valuable resource, and we ought to be the better satisfied thereat, because in general such cases are the most difficult to manage, as science possesses little more than uncertain and too often inefficacious means of controlling them.—*Jour. de Médicine et de Chirurgie.*

PAINLESS CAUSTIC.

M. Piedagnel, after various trials, has succeeded in producing a caustic that may be employed, causing little or no pain. It is formed of three parts of the Vienna caustic in powder and one part of hydrochlorate of morphia, intimately mixed together, and then made into a thick paste by means of chloroform, alcohol, or water. It is applied to the skin on diachylon. A black eschar is produced in fifteen minutes, increasing in thickness with the duration of the application. The morphia mixed in the same proportions with powered cantharides, prevents pain

during the rising of a blister. M. Piedagnel, who at present has only used this means for the production of issues and blisters states that the action of the morphia is merely local.—*Gaz. de Hop.*

FRACTURE THROUGH THE TROCHANTERS OF THE THIGH-BONE.

By James Syme, Esq., Prof. of Surg.

George T., æt. 23, recommended by Dr. Anderson of Selkirk, was admitted into the hospital under my care, on the 15th of January last, suffering from an injury which had been caused two days before, by a sack of flour falling with great force upon his left hip. I found him lying in bed, with the injured limb shortened, the trochanter major higher up, and more prominent than natural, and the knee turned over the sound one; in short, presenting all the characters of dislocation upwards and backwards. But, as a moderate degree of extension restored the proper aspect, and did so only while it continued in operation, I concluded that the injury was a fracture through the trochanters, in that peculiar direction which the late Mr. Guthrie had the merit of showing might cause aversion of the limb, and of which I placed on record soon after the publication of his paper, another case confirming by the evidence of dissection the correctness of this explanation.

Previously to Mr. Guthrie's observation, there was much diversity of professional opinion on this subject, and the most eminent surgical authorities were completely at variance with regard to it. Thus, while Paré and Petit had recorded particular examples of the fractured limb being inverted, Louis and Sabatier denied that such a condition ever occurred. Boyer declared that he had neither met with it, nor could imagine the possibility of its occurrence; and Desault, on the other hand, calculated its frequency as being in the proportion of one to four of the cases in which the toes are everted. The causes of eversion being the weight of the limb tending in that direction, as may be seen in a dead body, aided by action of the muscles, especially the flexors of the knee, the iliacus internus and psoas

magnus, and the rotators passing from the pelvis to the trochanter major, while the principal or almost sole counteracting force lies in the anterior portion of the two smaller glutæi muscles inserted into the forepart of the trochanter major, turning outwards of the limb should certainly be expected as the consequence of this fracture. But it was found by Mr. Guthrie, in examining the body of a patient, who had presented the unusual condition of inversion, that the fracture had detached the posterior part of the trochanter major, together with the trochanter minor, and left the anterior part of the former process connected with the shaft. Precisely the same state of things existed in the case that fell under my own observation, as may be seen from the illustration appended to its history.

It is worthy of notice, as Desault remarked, that the muscles which effect rotation outwards must be relaxed by the displacement consequent upon a fracture, as it will approximate their origins and insertions; and, there can be no doubt, that, in such cases, the eversion is counteracted by a very slight degree of force, more suggestive of passive than active resistance, or, in other words, of yielding to gravity rather than resulting from muscular contraction. Thus the effect of detaching the muscles of external rotation in causing inversion, would not be so much by preventing eversion, as by allowing the former condition to be produced through the agency of the smaller glutæi, so that the state of inversion would be the only one truly dependent upon muscular contraction. In cases of inversion, I have accordingly noticed that the resistance to adjustment of the broken bone was greater than in the usual state of eversion. Independently of other considerations, the diagnosis of this particular injury is of importance in regard to the prognosis, since whatever difference of opinion may still exist as to the reparation of fractures through the neck of the thigh-bone, there can be no question as to their ready reunion when seated in the trochanters, and in cases of eversion it is impossible to discriminate with certainty, by external examination between these two conditions, but when the toes are turned inwards there cannot be any doubt as to to the fracture admitting of complete recovery. While, therefore, prudence will always require that fractures of

the upper extremity of the thigh bone should be treated as curable, the surgeon must be cautious in promising a favorable result, unless inversion of the limb satisfies him that the case is certainly within reach of remedy.

In regard to the means of treatment there does not appear to be any room for choice, since the one unquestionably most comfortable to the patient, and most conducive to the end in view, is the "Long Splint of Desault." It was accordingly employed in the case which led to these remarks, and with such success that the patient left the hospital on the 13th of March, without there being almost any appreciable difference between the limbs by external examination. Sir Astley Cooper objected to this means of treating fracture of the upper extremity of the thigh-bone, that the pressure caused by its extending force would be apt to cause mortification in the feet of old people, who are most liable to suffer this injury. But I have long been satisfied, and by example as well as precept, endeavored to inculcate, that the long splint is not required to maintain extension, and that the good effects produced by it depend entirely upon the prevention of motion in the limb. For this purpose it must be long enough to extend from the patient's false ribs to a little beyond the sole of his foot, and broad enough to equal the height of the knee, as it lies in the straight position, so that, if the patient is an adult, it should be about four feet and a half long, by four inches and a half in breadth. Unless the breadth of the splint be thus proportioned to that of the limb, it cannot prevent rotation; and unless long enough to reach the lower part of the chest, it must be equally incompetent to prevent motion of the hip-joint. Yet, in the Surgery of Desault, by Bichat, it is represented as extending no higher than to the trochanter major, and not more than three inches in breadth. It is, therefore, not surprising that the splints of this kind, employed in practice, are so frequently defective in their essential requisites, being almost always too narrow, and either too long or too short. One sent to me lately from New York is six feet long, and three inches and a half in breadth, with a longitudinal slit for fixing at different distances a screw, having a hook at its extremity, for the more effectual maintenance of extension. But from what has been said, it will, I trust

appear that any such extension must be useless in fracture, through the neck or trochanters; and even when the shaft is concerned, an extending power cannot be required; since if the broken surfaces are properly adjusted, it is unnecessary; while, if they are not so, it is altogether inadequate to replace them. So soon as possible after the injury, the fracture should be carefully set, through due extension and manipulation, guided by regard to the form of the sound limb, and then, if in the shaft, be supported by two lateral splints of pasteboard, or split wood, long enough to extend from the pubis and trochanter major to the knee, and which may be secured by four or five looped bandages. The long splint, if properly applied, will then prevent rotation and insure perfect immobility. There should not be any bandages employed that cannot be undone without deranging the limb; and, therefore, instead of several long rollers, such as are frequently used, a sheet or table-cloth is preferable—the splint being wrapped in it, until merely enough is left for folding over the thigh and leg. Under this mode of treatment, for which all the requisites are so simple that they may always be procured extemporaneously, recovery is completed with great comfort to the patient, and no less credit to the surgeon, there being, in general, hardly, if any, perceptible difference in the limbs, instead of shortening to the extent of two inches or more, which happens so frequently as to have been considered by some authorities as almost unavoidable.

In conclusion; I beg to express my persuasion—

1. That the great requisites for treating fractures successfully are coaptation and immobility.

2. That extension, or a struggle between the two opposing forces of muscular contraction and a mechanical power is not consistent with either of these conditions.

3. That, therefore, extension should be abandoned in the treatment of fractures.—*American Journal Med. Sciences.*

NEW OPERATION FOR HYDROCELE.

The Brit. and For. Med. Chirurg. Rev. gives a paper from the Moniteur des Hôpitaux, by M. Carron du Villards, which

presents a new method of operating in this disease, and by which he has produced forty-eight radical cures, and but two failures. "It is attended with no accidents and but little pain, is adapted for all the complications and varieties of hydrocele, is of easy execution, and requires little confinement or after-treatment." He has been led to devise this means from the bad effects which result from injection in the Antilles, where he is located. These accidents are acute hæmatocele, tetanus, suppuration, acute orchitis, etc.

In performing his operation, the patient is raised on a high bed, with his buttocks well raised by means of a cushion, and the situation of the testis having been recognized, the operator, taking the lower part of the hydrocele in his hand, while an assistant presses it downwards, punctures the most dependant part of the tumor with a strong and narrow lancet, which he passes slowly in. As soon as fluid escapes, he slides a long narrow trocar along the blade of the lancet, keeping the point of the instrument within the canula until the upper boundary of the tumor is reached. Having reached this point, the canula is pressed against the tissues, so as to project them somewhat externally, in order to be certain that neither the cord nor a pulsating vessel can be felt in front of it. A piece of cork is next placed against the projected tissues, and against this the trocar is forcibly driven by the application of the palm of the hand to the handle of the instrument. A counter-opening is thus at once effected, just as the jewellers pierce the ears for ear-rings. The stiletto of the trocar is now withdrawn, and replaced by a grooved silver wire, which traverses the two apertures, and is left *in situ* on the removal of the canula. Spirit lotions are applied around the scrotum, and during twenty-four hours a slight discharge of fluid takes place. After this period, inflammation is set up, and the secretion is no more reproduced. The scrotum becomes afterwards red, hard, and painful, as in acute orchitis, but it rarely requires treatment. More frequently it has been found to encourage action by placing stimulant ointments in the groove of the wire. On the twelfth day (the patient being usually able to get up by the third) the wire is removed, the patient wearing a suspensory until the twenty-fifth or thirtieth day, by which time he is usually radically cured.—*Med. and Surg. Reporter.*

MIDWIFERY.

PRACTICAL REMARKS ON EPIGENESIS AND STERILITY.

By Samuel A. Cartwright, M. D.

The Graafian vesicle is the little bag containing the ovum. It corresponds to the shell of an egg. It is called ovisac. The ovum is one-tenth of a line in diameter. Immediately before or after menstruation, or its first day, or the last day or two of its continuance, is the time that ninety-five in one hundred conceptions occur. It often takes place immediately before. Then the menses, if they appear at all, soon cease. At these times the ovaria receive more blood, and the ovisacs are inflated and discharge the ova by bursting. The uterus at this time is also supplied with more blood for the formation of the deciduous membrane. There is usually no menstrual flow during pregnancy; it may appear once or twice. The discharge that some women have every month is not menstrual blood properly so called. Before the ovisac or outer covering of the egg or ovum bursts, it becomes vascular in consequence of the determination of blood to the ovaria at the monthly turns, and deposits a fleshy-looking substance of a yellow color. The discharge of ova or little eggs from the ovaries, occurs independent of conception or sexual intercourse, and it is not essential, therefore, that the spermatozoa should reach the ovaries to effect the fertilization of the ova. They may be fertilized while passing to the uterus, through the Fallopian tubes, or in the uterus itself. There are cases proving that they are fertilized while in the ovaria. The farther the ova are extruded the less their capacity for impregnation in the lower animals. But this is not so much the case in the human female. The sexual orgasm is greater during the evolution of the ova at the commencement of catamenia, and a short time after the cessation of the flow. It is only when the ova are set free, that is, burst from the ovisacs or shells, that they are prepared for fecundation. Absolute contact of the spermatozoa with the ovum is essential to fecundation. The spermatozoa are minute particles or germs endowed with self-locomotory powers. They are not animacules, as have been supposed, from their moving rapidly under the microscope. Globules of blood have the same self-locomotry powers. They are particles

or germs, male and female, being absolute parts of man's body. parts of the whole man himself, as the bud of the oak is part of the tree, or the bud of the plant, part of a plant. Fecundation is the engrafting of this bud in the ovum, which is a part of the body of the female. Woman's part in the reproduction of the species, is to furnish the stem for the graft or bud, and to supply if with nutriment afterwards.

After the ovum is impregnated, it continues to move downwards to the uterus, and acquires, in its passage through the Fallopian tube, a gelatinous covering, corresponding to the white of an egg. This covering is called the chorion, so called from it being a chorus or company of blood-vessels; and from them the graft or bud, transplanted in the ovum, derives its nourishment by means of absorbing radicles, until it arrives in the uterus. By the time it gets there, the deciduous membrane is formed in the uterus to wrap it in, and this membrane is supplied with nourishment to feed it. The villi or little projections or tubes of the chorion are embedded in the fleshy substance of the deciduous membrane and supply nourishment to the embryo, as the homonculus within the ovum is called, after it reaches the uterus.

As the embryo grows and wants more nourishment, another coat is formed over the decidua. This second layer is called the decidua reflexa, to distinguish it for the decidua vera. Little tufts shoot out from the decidua, which imbibe nutriment for the embryo, and ultimately form what is called the after-birth or placenta.

The placenta does not now begin to form until the latter part of the second month. The blood vessels of the uterus are greatly enlarged at the part where the placenta is placed more than elsewhere, and the blood, in moving through the enlarged vessels. produces a peculiar murmur, which is audible at an early stage of pregnancy, and is one of the positive signs. It is a cooing sound, like that of blowing over the lip of a wide-mouth vial, always heard in the same spot, but often heard at one time and not at another of the same day or week. It is sometimes heard in the eleventh week, but cannot be relied on before the sixteenth. The mammary gland becomes more developed and the

areola of the nipple, and the nipple itself undergo marked changes by the fourth month, being larger and darker. A sense of distension is often felt at the end of the second month, and a tenderness and knottiness occur in the breasts, with occasional shooting pains; but this is not an invariable sign. May not happen if the woman be pregnant, and may occur if she is not; which are exceptions, not the rule. A puffy turgescence of the nipple, and an increased size of its little tubercles with a dewy moisture on them, is a more constant concomitant of pregnancy. Sick stomach and excitcability of mind attend. Women do not generally know when they conceive, others do, as it produces in them a shuddering sensation, a fluttering movement, attended with dizziness and fainting feelings. Others often feel similiar sensations nearly every time they are embraced, and some faint. After conception there is no consciousness of change until quickening. Then a fluttering movement and some degree of syncope are apt to be felt, with a show of a little blood. These sensations are renewed once or twice before the motion of the fœtus is felt by the motion.

Some mothers never feel the motion of the fœtus. The usual or average time of quickening is the eighteenth week. The usual time for parturition is the fortieth week, or two hundred and eighty days. Seldom over that time, but very often a few days under it.

Fecundation does not depend much on the general health of either party, because the generative system has, as it were, a life in some degree independent of the general system, as very sickly looking women often are good nurses, and have healthy children.

The generative system does not come to perfect maturity until after the general system begins to decline. The activity and vigor of perfect manhood, and the freshness, plumpness and beauty of womanhood begin to decline before they have arrived at a stage of life when the powers and capacity of the sexes in reproduction have gained their maximum intensity, which is reached about the 30th year with woman and 40th with man. It is in the beginning of the sear and yellow leaf that the fruit matures, after the flowers have faded. The children of very young parents have not the same viability or life-power as the child-

ren of parents of maturer age and declining age, nor are they so intelligent. But, after a certain age, about 45 in woman, they cease to have children; but up to that time their children are generally more vigorous and intelligent than those they had in early life.

The power of enjoying repeated sexual embraces, declines to less than one-half, before the power of fecundation has arrived at its greatest intensity. Nature appears to have two objects in view in bringing the two sexes together. One, that of love and pleasure, and the other, the perpetuation of the species.

Both are natural instincts, but do not run parallel, and one may exist without the other. In early life pleasure is uppermost, but in middle life, a desire for offspring is the strongest instinct. Mahometans, and all the Eastern nations, deny women sexual pleasures at any other time than when in a fit condition for conception; after they have conceived, they are set aside and not again embraced until they have had the child and weaned it. The Christian practice is different. Among Christians, the wife is used as a wife during pregnancy and lactation, as at other times, except the month of confinement, and sometimes the last few days or weeks before that event. During the catamenial period, it is the practice to excuse the wife. Many women are sterile from too strict an interpretation of Moses' laws, which are made to include the evolution of the ova, the first and last days of the vaginal discharge as menstrual, because it is colored, often more deeply than the regular hemorrhagic flow, or menses proper. The lower animals do not menstruate; yet a discharge attends the evolution and bursting of the ova. With them, it is called the pride or heat. In women, it is too apt to be confounded with the catamenia proper, and sexual indulgence prohibited, under a mistaken idea of its being the prohibited flowers of the Old Testament. The prohibition there, could only have been intended to apply to morbid issues and to the menses proper, certainly not to the natural secretions attending ovulation, in a healthy female. Four hundred years before the Christian era, Hippocrates, whose works are still extant and still regarded as the best authority, recommended the period of what is now called ovulation as the proper time for prolific sexual intercourse, viz.:

the first and last days of the so-called menstrual discharge, but not during the two or three days of its free and regular flow. He advised fasting on those days to his barren patients, and steaming the uterus with volatile aromatics, by means of an instrument we now call a speculum. To use no bathing or washing, but to wipe off the moisture with dry cloths perfumed, and even to cover up and retain the speculum in its place, and not to remove it until a minute before the embrace is received. Then to lie still, with the limbs crossed, not to make much exertion, or sudden motion of the body, and to live on a plain, and very light diet for five or six days, to prevent the sporangium from perishing and being extruded. If not extruded then, the mouth of the uterus is sealed. There is no danger from inconvenience from subsequent embraces. Twins are supposed to be the product of a second embrace, before the orifice of the uterus has been sealed. It may, however, endanger the first if it is not successful. After impregnation, the fecundating fluid does not reach the cavity of the uterus at all. It either returns as any other foreign substance, or is absorbed. The vaginal walls, in a healthy state, possess great powers of absorption. Medicine can be given that way. When the stomach is irritable and the patient requires cod liver oil, it answers as good, or a better purpose to inject it in the vagina, or introduce a wad of cotton or wool saturated with it. During pregnancy and lactation, and also during the three weeks between the periods, it matters but little whether the fecundating fluid be retained or not.

Some women, about five in one hundred, are impregnated at some time or other of the three weeks from some stray ovum which has been extruded from the ovaries under some strong excitement out of its proper time. Moist and phelgmatic women who cohabit often, had better soak out the fluid with a dry cotton tampon, otherwise health and delicacy require nothing to be done. Many women improperly use injections of cold water or other things. They hurt themselves by injections of an astringent kind, particularly lead, white vitrol, alum, oak-bark, and such substances. They tan the membrane and destroy its natural elasticity. It is a common error to use such injections for fluor albus and for laxity of the parts. The better plan is to encour-

age the flow by warm mucilaginous applications, to enable the engorged vessels to empty themselves. Then the discharge, an effect of the engorgement, will cease, and the elytron will contract and regain its usual healthy elasticity. Whereas, if the blood in the engorged capillary vessels of the vagina and uterus be brought to a status and fixed in the capillaries by astringents, the parts cannot contract, and the membrane will lose its pliancy and elasticity. The elytron's inner coat is rugose, in some respects resembling the rugosity of the scrotum. When healthy, it is more rugose than in a morbid state. Maladies of a grave kind destroy or nearly obliterate the rugosities of the scrotum. The relaxing and debilitating effects of hot weather act on both those parts pretty much alike. In women, it is more necessary to keep cool than in the other sex. The practice of wearing drawers, or any thing to heat the parts, is injurious. The thighs and hips are much larger in proportion in woman than any other parts of her body. In proportion to the development of a part, it bears heat less and cold more, because there is more blood distributed to it. There is more blood in that portion of the skin covering the face, and more glands, than in any other portion of the whole surface of the body; and hence the face stands cold better than other parts. The neck and breasts of women are better supplied with glands and capillary vessels than men, and hence they have not the same need of covering. It would be unfortunate if this was not the case, as women would be liable to catch cold from exposing their breasts to nurse their children. The breasts, like the thighs, perineum, and labia majora, should be kept cool. A very large, plethoric woman, with large breasts, had been married some ten years and had no children, though she had had abortions. The treatment advised was, to release her breasts from the flannel garment that encased them and kept them hot enough almost to roast an egg. There was a febrile heat constantly maintained in the uterine region by wearing tight-fitting drawers, which actually excluded the air from the vulva. She was also advised to follow the letter of that portion of Scripture which forbids woman from using man's apparel, or any garment resembling breeches, and consequently to take off her drawers, in obedience to the true original meaning of the

Mosaic law, and not fear the cold. She did so, and soon conceived a healthy male child. Long stockings to protect the legs, fastened above the knees, are necessary. Thin pliant shoes are better than bootees. Indian rubber or thick soles are not as healthy as thin, when not walking on damp ground, as they sweat the feet. The thighs should be bare, and the dress should stand off from them. But the body should be kept warm. The breasts should not be pressed upon by the dress so as to be immovable, and the upper part should have air, and be very thinly and loosely covered. Nipples which have been pressed into the breasts and excluded from the air by a false mode of dressing, become so tender as to bleed and cause the fashionable young mother to scream every time the child's mouth is applied to them. A little learning is a dangerous thing—uneducated women seldom suffer with their breasts during lactation, nor do the highly polished and thoroughly educated. Two-fifths of all the food and drink pass out by the exhalents of the skin. The integuments covering the pudenda, thighs and nates, throw off more effete matter than any other portion of the periphery of the body. If the effete matter does not pass off by the skin, it causes congestions of the womb and other viscera, and is thrown off by a discharge from the mucous membranes, or is exhaled from the lungs, poisoning the breath, or is cast off by the kidneys, causing great irritability in the bladder and inability to retain the urine. Less harm is done when it passes off by the utero-vaginal membrane in the form of what is called whites. If the latter be dried up by astringents, without removing the cause, the health and complexion of the woman will suffer, and her power of giving and receiving conjugal pleasure will be impaired. The utero-vaginal membrane is best cleansed by its own secretions. Cold water injections fix the matter that ought to pass off. Soap and water immediately relaxes the elytron and destroys the natural acidity of the mucus.

The vulva needs exposure to the external air, as it is the embouchure of a deep current of gaseous and volatile matters from innumerable conduits, follicles and lacunæ of an extensive number of exhaling organs which have no other outlet. When that is obstructed by tampons or pessaries, by perineal bandages, or

any anti-Scriptural mode of dressing, the vaginal secretions not only become highly offensive, but so putrescent, tenacious and acrid as to destroy the vitality of the spermatozoids of the liquor seminis, or greatly to impede their motion. The pubic region not only requires air, but fanning, which is effected in walking, by the flapping of the loose skirts of woman's garments when properly dressed. Hence, sedentary women are less prolific and more subject to uterine diseases and offensive odors, than those who volatilize and dissipate the effete excrementitious humors of the generative system by the fanning exercise in walking. The tenacity and puriform nature of the vaginal secretions necessarily occasioned by sedentary habits and an improper, unscientific, anti-Scriptural mode of dressing, is a great impediment to the fertilization of the ova, even if those gross acrid humors did not destroy the viability of the zoospermes. It impedes their motions. Their own fluid, the liquor seminis, is too tenacious to admit of their free motion until it is made thinner and lighter by being mixed with a tenuous watery, almost gaseous fluid, secreted by the ovaries and the utero-vaginal follicles, which adds greatly to their motivity. The indelicate and hurtful practice of using cold water injections or astringents under the mistaken idea that they are demanded by cleanliness and give tone to the parts, actually cause what they are intended to prevent, and by astringing the conduits of the follicles, stop up the channels of that thinner and lighter fluid, intended by nature to remove the tenacity of the liquor seminis, and to give activity to the spermatozoa. Women who have abused themselves in this way, or who are afflicted with uterine maladies, are seldom conscious of any discharge from themselves in sexual embraces. They have little or none, and are not susceptible of any very high degree of pleasurable excitement; while with others it is very abundant, and so light and gaseous as to gush forth under strong excitement like liberated gas or ether. It is important to insure the fecundation of an ovum that it meet and commingle at the same instant of time with the liquor seminis containing the zoospermes to which it imparts a most active motion. That portion of it which comes down from the ovaries washes out the mucosity obstructing the Fallopian tubes and blocking up the mouth of

the womb, thereby opening all the conduits to the self-locomotry germs to seek the ova. In a healthy condition of the organs concerned in reproduction, love alone is generally sufficient to insure that sympathy and harmony between the parties so essential to carrying out the designs of nature in perpetuating the species. But there are temperaments so different, and so many functional derangements of the generative system, as utterly to annul the harmonizing influence of the purest conjugal love, unless science be invoked to remove the physical causes obstructing the play of the sexual sympathies between the parties.—*N. O. Med. and Surg. Journal.*

BELLADONNA AS A MEANS OF SUPPRESSING THE MILK

By Edmund Sayffarth, M. D.

The secretion of milk had commenced two days previous to the birth of the child, which died four days after delivery, under symptoms of cerebral pressure. The child having been laid on the breast four hours after birth, nursed from time to time, until a few hours previous to its death. The milk being very abundant, and continuing so during three days after the child's death, was repeatedly drawn by the pump, and the above-named compresses were continually applied, when the secretion soon ceased, leaving the nipples slightly sore to the touch, probably from the application of the breast-pump more than anything else. The solution of belladonna was discontinued at the ninth day from its first being used, leaving the breasts in a good and healthy condition.

The second case occurred in the wife of the undersigned. The child died sixty-two hours after delivery. The secretion of the mammæ commenced on the morning of the second day. The same applications as in the first case were made during eight days, when the secretion ceased. There was no soreness of the nipples, but some indurated nodules were felt in several parts of the breast, during the first few days, which melted under the use of castor oil carefully rubbed into the hardened parts.

Case III.—Mrs. R. B. Philips, Keokuk, Iowa. The child, aged 13½ months, died from the effects of dentition. The breasts,

the third day after the child's death, were very hard and painful. Castor oil was used as an embrocation, and the milk was extracted repeatedly. I then made use of a strong infusion of the fresh leaves of belladonna, which were near at hand, applying it as above. A decided improvement was visible after the first few applications; the breasts becoming soft and less tender, ceased to secrete by the first day after the applications.—*Boston Med. & Surg. Journal.*

USE OF THE SPECULUM IN UTERINE DISEASES.

In the last volume of the "Medico Chirurgical Transactions," Dr. Lee publishes the details of eighty cases in which the speculum had been employed by other practitioners, which with 220 cases previously published, make 300. Upon the use of this instrument he remarks:—

"Of these 300 patients, 47 were unmarried, one had barely completed her eighteenth year; there were several under twenty, and the greater number under thirty years of age, and were suffering from hysteria, leucorrhœa, dysmenorrhœa, or some nervous affection of the uterus, without inflammation, ulceration, or any structural disease, or displacement of the organ. In one case, the patient had been informed that the womb was prolapsed and much ulcerated, and some instrument had been introduced daily for six weeks, by a physician extensively engaged in the treatment of uterine disease, and great expense incurred, with an aggravation of all the symptoms. In this case I found the hymen so perfect that it was impossible to reach the os uteri without employing an unjustifiable degree of violence. On the ground of morality, and on every other ground, the employment of the speculum in these 47 cases could admit of no defence.

"Of these 300 patients, 70 were barren, and the sterility was not removed, nor the hysteria, leucorrhœa, or disordered menstruation, under which the greater number were laboring, in a single instance relieved, or any benefit obtained. The injurious effects of a long course of speculum and caustic treatment upon the moral feelings and character of several of these individuals were not attempted to be concealed, the treatment being spoken of with horror and shame.

"Of these 300 patients, there were a considerable number suffering from cancerous disease of the uterus, in all of which the symptoms were increased by the introduction of the speculum, and the application of caustic or the actual cautery to the ulcerated vagina, and os and cervix uteri. In one case, though the carcinomatous ulceration was in an advanced stage, and the nature of the disease obvious to the most inexperienced, after an examination with the speculum, a false prognosis was given, and iron heated to a white heat in fires of coke, was for months passed through the tube, and delusive hopes of recovery held out to the last, and the pecuniary concerns of the husband involved in irretrievable ruin by the charges, medical and surgical, incurred by such unscientific, unprofessional, and unprincipled proceedings.

"Neither in the living nor the dead body have I ever seen a case of simple ulceration from chronic inflammation of the os or cervix uteri, and to apply the term ulceration to states of the os uteri in which the mucous membrane, or, as it is termed by some, the basement membrane, is not destroyed by ulceration, is an abuse of language calculated only to deceive and mislead the members of the medical profession, from whom the truth has been carefully concealed. The speculum emanated from the syphilitic wards of the hospitals of Paris, and it would have been better for the women of England had its use been confined to those institutions."—*Boston Med. and Surg. Jour.*

ON SOME NEW CONTRIBUTIONS TO THE DOCTRINE OF URÆMIA DURING AND AFTER PREGNANCY.

By Professor Litzman.

(*Transactions of the Berlin Obstetrical Society, Monatschrift f. Geburtsk, June,* 1858.)

In a paper read before this society, Prof. Litzman expresses his opinion, that future times would establish the fact that eclampsia ought to be considered as a symptom of uræmia, with very few exceptions. Still, eclampsia is not the only form of uræmic intoxication. Other symptoms of this affection are, amaurosis, coma, mania and typhoid fever. The most general cause of uræmia in cases of this kind, is Bright's disease of the kidneys,

i. e. an exudation of an albuminous and fibrinous fluid into the urinary ducts, in consequence of which the excretion of urea and other ingredients of urine is checked. It most commonly takes its origin during the latter months of pregnancy, owing to a stasis of the venous blood in the kidneys. The urine taken from women thus affected shows a considerable decrease of urea, and very often of lithic acid. It often happens that the progress of the disease, as detected by the microscope, does not correspond with the symptoms during life, and the reaction of the system seems to depend more upon the extension than upon the intensity of the affection. If a considerable portion of both kidneys is affected with the first stage of the disease, the effect upon the constitution of the blood is greater than if a smaller portion is in a more advanced stage. In the former instance, the excretion of urea must be more restricted, than in the latter one. This is exemplified by the history of a case, where, with a seemingly far advanced degeneration of the kidneys, the excretion of urea was not diminished, and consequently, no uræmic symptoms occurred.

The second case reported was one of congestion of the kidneys, in which severe uræmic symptoms set in, while only very slight traces of albumen could be detected in the urine. But a chemical analysis proved a considerable decrease of urea during the several attacks; and when the patient began to recover, a larger quantity of urea could be detected in the urine. The child which was born with a cyanotic tint, died twelve hours after birth. A chemical analysis proved the presence of a considerable quantity of urea in his blood.—*N. Y. Journal of Med.*

PHYSIOLOGY.

THE PHENOMENA OF SPINAL IRRITATION, AND OTHER FUNCTIONAL DISEASES OF THE NERVOUS SYSTEM.

Thomas Inman, M.D., Physician to the Northern Hospital, Liverpool, and Lecturer on Medicine at the Royal Infirmary School of Medicine.

Establishes the following propositions in his recent work:

1. That the symptoms attributable to "spinal irritation" have nothing to do with the spinal cord, or the nerves arising from it.

2. That the majority, if not the whole of them, are due essentially to the same cause which produces the spinal tenderness.

3. That the spinal tenderness results from overstraining of the fibrous origins of the muscles attached to the spinous processes.

4. That the spinal tenderness is analogous to that experienced at the origin and insertion of muscles in other parts.

5. That the weaker the individual is, the greater is the tendency to fibrous pain.

6. That the most common causes of the pain and tenderness, in any part of the muscles, are constitutional or acquired debility.

7. That debility increases equally the irritability of the muscular and the nervous system.

8. That before hysteria can manifest its presence there must be debility from some cause or other.

9. That debility may show itself in the muscular or nervous system, or both.

10. That debility affects the nervous system as a whole or in sections—*i. e.*, mental, sensitive, motor, organic.

11. That functional affections in any one or more of these parts have long been recognized as emanating from deficient vital power.

12. That anything which deteriorates the vital power has a direct tendency to aggravate the complaints referred to.

13. That the muscular and nervous irritability are subject to the same laws, and that the remarks applicable to the one are, *mutatis mutandis*, applicable to the other.

14. That the link connecting hysteria with spinal disorders is constitutional or acquired debility.

15. That, as regards curious mental phenomena, excess of sensibility in the nerves of common or special sensation, a propensity to spasmodic actions and to irregular organic phenomena, there is no essential distinction, they are simply different facets of the same die.

16. That the essential distinction between genuine hysterical and muscular affections is, that a large amount of bodily rest is necessary for the cure of the latter, while it is not so absolutely requisite for the former.

17. That, for the future, it will be necessary to discriminate between pain arising from muscular fatigue, cramp, or fibrous stretching and genuine neuralgia, and that there will be neither precision in diction nor a clear idea of treatment until the distinction is made.

THE INTRODUCTION OF CHLOROFORM INTO THE ARTERIES.

When a few grammes of chloroform are injected into the abdominal aorta of a rabbit, an instantaneous rigidity of the muscles of the inferior extremities is observed, which resembles the stiffness of death. Various essential oils produce an effect similar in character, and limited to the parts injected. The muscles seem to acquire the hardness of wood, when the experiment is made upon a living animal; whilst the rigidity is less apparent in proportion as the muscle is deficient in contractile power, and the organism in vitality. When the cadaroric rigidity, natural to the tissue, has disappeared, there is no effect produced, whatever the nature of the substance thrown into the arteries.

The rigidity resulting from the chloroform is the effect neither of a coagulation of blood in the vessels, nor of the albuminous fluid imbibed by the muscles; but of a positive change in the contractile element which enters into the composition of the tissue. Under these circumstances, the muscular fibre is less elastic and more fragile, manifesting either partially or completely, a want of normal contractility, and an interruption of the electric currents peculiar to it, and presenting in fact the same characteristics as in the rigidity of death, or that produced by an unnatural temperature. This condition presents no point of analogy with an ordinary tetanic contraction, and M. M. Cage and Flourens, who have so considered it, have been deceived into this belief by the partial development of mobility in the affected part. For though the stiffness disappears always in a few moments when the experiment has been attempted upon a living animal, yet, the movements which are subsequently observed, are invariably produced by those muscles which did not participate in the primary rigidity. Those which were

really thus impressed lose their vitality at once, and soon putrify as well in the living as the dead animal, and in fact more rapidly in the one than in the other, since, though all remnant of vitality be destroyed in the injected tissue, it will remain hard and intact for weeks when the whole body has decayed.

It is remarkable that chloroform in combining with muscular tissue, should destroy its vitality, and at the same time endow it with the power of resisting putrifaction for a long period. The explanation of the seeming difference in this regard, in the living and the dead animal, is this, when the animal survives the experiment, the blood continues to circulate—leaves the muscle, and, by carrying chloroform from it continually, destroys this protective combination, whilst, at the same time, it moistens the tissues, impregnates them with oxygen, and maintains their temperature.

When gangrene has succeeded that condition of relaxation which follows rigidity, the blood coagulates in the vessels, entering into the seat of the decomposing process; thus exhibiting one of those cases in which the obliteration of the vessels is the effect and not the cause of mortification. It is probable that the absorption of putrid matter produces this coagulation; and that the general system participates in the disturbance, because of the taking up of poisonous elements by the vessels surrounding the gangrenous part without penetrating into it. Coagulation certainly takes place very slowly in these vessels; and M. Kressmaul has established by a conclusive experiment, that even when circulation has ceased in a gangrenous member, certain absorbable matters, as the iodide of potassium, can still penetrate into the general circulation, even when they are applied very far from the line of demarcation between the living and dead tissue, a discovery, by the way, of great practical utility. This fact proves that in cases of wet gangrene, there is always a certain exchange between the part completely destroyed and the circulation which is prejudicial to health, and that the gravity of this absorption depends upon the extent of the gangrenous surface, and not alone upon the thickness of the member affected. The final deduction from all this is, that it is a matter of importance

not to leave the diseased extremity in contact with the healthy tissues of the body.

The gangrene resulting from chloroform should really be classed with that which is produced by the absorption of certain poisons; but it proves at the same time that these poisons do not necessarily partake of the nature of ferments, for the extremity is really dead from the effect of the chloroform upon it, before putrification takes place.

The different phases in the progress of general gangrene may be thus divided.

1. The tissues (muscles, nerves, &c.,) lose their vital properties, die and become rigid. This is the *cadavérism* which often precedes gangrene properly speaking.

2. Gangrene—Softening, commencement of putrification, blood continues to circulate, at least its coagulation has not yet been the cause of gangrene.

3. Sphacelus—Putrifaction affects the blood penetrating the gangrenous tissues; it coagulates and arrests the circulation. Often currents foreign to the vessels continue to circulate for sometime in the interior of the tissues. Development of gas, destruction of tissue.

4. Mummification—The mortified tissues lose the liquids which impregnated them, recover them no more and wither up.

Translated from the Archives Générals de Médecine, Septembre, 1858.

THERAPEUTICAL RECORD.

Gleet.—Dr. Otterson, (in the *New York Journal of Medicine*,) recommends the following plan of treatment in this affection. Introduce a No. 8 metallic grooved bougie, the groove being filled either with citrine ointment or calomel; the latter is more certain in its operation. The instrument need be passed only a sufficient length up the urethra to get the point beyond the glans penis, when it should be revolved three or four times, then, allowing it to remain for three or four minutes, a probe, adapted to the curve of the instrument, should be passed down the groove,

and both withdrawn simultaneously, so as to leave the whole of the calomel in apposition with the parts. This should be repeated two or three times a week, and in a short period, a permanent cure will be affected.

Nævus.—Dr. Cosfeld reports that he has derived great benefit from the employment of the following combination, viz., *Corrosive Sublimate* one part, *Collodion* two parts. No pain is experienced, the eschar falls off, and the nævus disappears in from ten to fourteen days.

Pernicious Intermittents.—The chlorate of potash is highly recommended (*Chicago Medical Journal*) as a remedy for that condition of congestion, &c. which characterizes the *paroxysm* of this most dangerous malady. Ten grains are given every two hours, alternating with 10 drops of chloroform.

Diarrhœa.—M. Pensa (in the *Gazetta Medica Italiana*) gives a case of diarrhœa in a young girl, which was treated successfully by boli of raw meat of the size of a filbert, given four or five at a time, every four hours. Mutton and veal were employed in this instance.

Suppression of Menses.—Dr. Ronzier Goly (*Revue de Therapeutique*) states that an infusion of Milfoil gives speedy relief in cases of this character. He gives a strong infusion three times daily, *pro re nata.*

Constipation in Children.—Some sweet sugar-water should be given every day, besides the breast, as the constipation usually results from a deficiency of sugar in the mother's milk. (*New York Journal of Med.*)

Anasarca.—Dr. Colegrove (*Boston Med. and Surg. Jour.*) reports a case of anasarca, which was successfully treated by puncturing the lower extremities. Five punctures were made below the knees, from which at least five gallons of fluid escaped. This is by no means a new expedient, and though sometimes remedial, there is always great danger of the punctures becoming unmanageable ulcers.

Chronic Catarrh.—Dr. Griseler speaks highly of the inhalation of Sal Ammoniac in this disease. A drachm of dry muriate of ammonia is heated over a spirit lamp, and the patient inhales the vapor. He says also that the same means are of

service in scrofulous affections of the eyes, and in catarrh of the bladder.

Scrofulous Ophthalmia.—This affection yields rapidly, in many instances, to a combination of corrosive sublimate and the sulphate of quinine, in the proportion of $\frac{1}{4}$ grain of the former, to 2 grains of the latter, administered three times daily, until the gums are affected. A child six years of age, will bear one-half of the above with impunity. Applications of sulphate of copper should be frequently made at the same time.

Epilepsy.—In Paris, the following formula has been much used for epilepsy :—

℞ Aqua distill., parts 95.
Acid Valerian „ 3.
Sub Carb. Ammon. q. s. to neutral. acid.
Ext. Alcoholic Valerian; parts 2.

Mix.—Dose, teaspoonful three times a day.

Hæmorrhage.—M. Lami strongly recommends the following hæmostatic :—

℞ Decoct Rhataniæ, parts 300.
Alum „ 60.

If the mixture be given internally, 70 parts of syrup are added, and when thus administered 10 drachms may be taken three times daily, while for external use it may be employed as an injection or a lotion.

Uterine Neuralgia.—Dr. Aran, of the Hospital St. Antoine, lets fall a drachm of laudanum into the speculum, and fixes the fluid in the vicinity of the womb by means of a table-spoonful of powdered starch. This is repeated every second or third day, and usually with success.

Infantile Convulsions.—Dr. S. Laurence says, (in the *Edinburgh Medical Journal*) that he has treated this affection successfully, when all other remedies had failed, by administering carbonate of iron, in doses of four grains every two hours.

Mania.—Dr. Baillarger, (in *Gazette des Hop.*,) states that he has treated acute mania with *milk* with the best results. He particularly recommends it in those cases arising from weaning on the return of menstruation after child-birth. To such patients he gives milk in large quantities, mingled with aqua laurocerasi, which is a useful sedative, and improves the flavour of the milk.

Delirium Tremens.—Dr. J. E. Van Molle (in the *Oglethorpe Medical Journal,*) recommends Canabis Indica in this malady. He states that he has employed it successfully, and advises its administration in the following manner :—

℞ Cannabis Indica, grs. 20.

To be divided into five pills,—two of these to be given at once, and one every succeeding hour.

Erysipelas.—Dr. Auciaux, of Belgium, recommends the following preparation :—

Take of alum in impalpable powder, 20 grammes.
White precipitate, 1 gramme.

Triturate, and add of Glycerin 90 to 100 grammes. Shake well and apply it locally.

Tooth-Ache.—℞ Conia, one drop.
Rectified alcohol, } a. a. four drops,
Essence of Cinnamon, } M.

This must be applied by means of a camel's hair pencil.—(*Repertoire de Pharmacie.*)

Boils.—Mr. Shillitoe describes (*Medical Times and Gazette,*) certain measures which he has found useful. He believes that incipient boils may be dispersed by painting every suspicious spot with an aqueous solution of opium of the consistence of molasses. This coating should be renewed every six hours. A plaster of equal parts of soap, opium, and mercury, spread on thick leather, should be applied when the opium paste is discontinued.—(*Virginia Med. and Sur. Journal.*)

Epistaxis.—Dr. Barker, of New York, gives several cases (in the *American Med. Monthly,*) which establish the hemostatic properties of the compound tincture of benzoin. He injects this into the nostril, and frequently with decided benefit to the patient.

Paronychia.—Dr. E. Sanborn, of Andover, in a note to the *Boston Med. and Sur. Journal,* recommends with great confidence the application of a single drop of creosote to that form of paronychia consisting of ulceration about the root of the nail, accompanied with purulent secretion, and sometimes ending in destruction of the matrix. He states that the disease often occurs in the hoofs of sheep, much to the disadvantage of wool growers.

Gout.—Dr. Belli states, in the *Gazetta Medica di Toscana*, that he has for many years succeeded in curing gout in the following manner. He gives, for two or three days every fortnight, or at the first symptoms of a fit, a purgative composed of from ten drachms to an ounce of Epsom salts, twenty-four grains of nitrate of potash, and about one grain and a half of sulphate of iron, the whole dissolved in a pint and a half of water. With weak subjects, the purgative is given only every other day. The fourth part of the whole solution is given every successive half hour, with a few cups of light broth, or an infusion of althæa officinalis, tea, or camomile. An excellent adjuvant to this method is the juice of the wild chicory, of which three ounces should be taken every morning, fasting, during the greater part of the year, or the whole twelve months. A decoction of the root of the same plant may be substituted, and either should be sweetened with an ounce of wild strawberry syrup. (It is a pity Dr. Belli says nothing of diet.)—*London Lancet.*

Corns.—Drs. Varger and Wages state, in the *Zeitung fur Med. and Chir.*, that painting inveterate corns with tincture of iodine three or four times a day with a camel's hair brush will remove them in a very short time. When the corns are situated *between* the toes, the tincture should be mixed with glycerine, and the resulting fluid be spread on some German tinder, which latter is then placed between the toes.—*Idem.*

EDITORIALS AND MISCELLANEOUS MATTER.

THE LEGISLATURE.

Although the profession has heretofore been treated with contempt by the General Assembly, when it asked such protection as was most imperatively demanded by its own necessities, as well as by the highest interests of the people, the State Society has resolved to make another appeal to the good sense of that Honorable Body in behalf of a Medical Board of Examiners for North Carolina. We do say most emphatically, that we have been treated with contempt,—for, though we

number more than twelve hundred men, who in point of respectability, learning, and cultivation, can compare favorably with any class of their fellow citizens,—our most respectful petitions have been disregarded, our appeals for justice and equality unheeded, and our profession reviled and traduced by those who *professed* to be gentlemen, and who *certainly* were Members of the Legislative Body. No time could be found for the discussion of *so unimportant* a Bill, as that for the exclusion of the ignorant and unworthy from the ranks of the medical profession. But when it became important to increase the revenue, the Doctors were remembered, and a most unjust, discriminating, and unconstitutional tax levied upon them, that they might contribute to the support of a government which affords them no protection whatever. We had a right to be heard; but only a deaf ear was turned to our petitions: we deserved consideration and respect from those whose peers we were,—whatever their opinion to the contrary;—but our claims were as shamelessly ignored as if we had been the veriest pretenders upon the face of the earth. We should have been protected by the agents especially selected to guard the interests of the people; but they feared to jeopardize their popularity with those truckling swindlers who are a disgrace both to the profession and to humanity itself, and we were compelled to retire from the Capitol, disheartened and defeated, to await the coming of "a better day." This shameful obliviousness to the demands of patriotism,—this reckless indifference to the claims of science,—this circumscribed, bigoted, and contemptible subservience to the considerations of self-interest,—deserves public reprobation, merits the scorn of honorable men, and justifies the assertion that the Physicians of North Carolina were treated with injustice and indignity when the Legislature rejected their petition for protection, by an overwhelming and most enthusiastic majority. Some arrayed themselves against us from mere indifference,

others from positive ignorance, but many from an uncompromising hostility to the Medical Profession—a sentiment resulting from that opposition to decency and respectability, which is as natural to the envious hearts of some men as their own pulsations. And it is especially against the time-serving tricksters who compose the latter class, that we desire to pour out the vials of our wrath,—and to hurl the anathemas of a most righteous indignation,—for there is a malignity in their opposition, which lacks even the merit of an excuse for its existence, but is as gratuitous as it is inveterate and unscrupulous.

But we are willing to abandon the *past* with its errors,—for the more promising *present*. We desire to forget our disappointments, and to live only in the brighter hopes which more auspicious circumstances inspire: We wish to banish the clouds of darker times, and to bask in the sunshine of that "better day," which seems to have dawned at last. The Legislature is now in session; its members are new men, and uncommitted to any hostility against our measure; the question of a Medical Board has been discussed, and is well understood; the people have been aroused to a just sense of the importance of this reform, and demand it as an act of justice to themselves; the state has awakened from her protracted lethargy—has broken the chains of ignorance which so long crippled and confined her,—has scattered the mists of prejudice which blinded her to her highest interests and her appropriate destiny, and has now started upon a far nobler career of usefulness and honor than was ever anticipated by her most sanguine son; the legislators of to-day must realize the obligations imposed by the spirit of the age to aid in advancing the cause of science, and in promoting the interests of humanity, whatever the personal sacrifices demanded at their hands; and the State Society has appointed a special committee to memoralize the General Assembly upon the subject of a Medical Board, and to frame such a Bill as is demanded

by the exigences of the case. With all these circumstances in our favor, this great measure of reform—this most just and salutary law,—*can suffer* no defeat, and *must* receive the sanction of the Legislative Body. Surely no fear of charlatans and imposters can warp the judgment of the honorable men who have the decision of this matter in their hands. No dread of the responsibility of so great an innovation can disturb them in the conscientious discharge of their duty. No question of the propriety of this reform can induce them to falter, when the united judgment of the medical world pronounces this plan feasible and proper, and the people themselves are convinced of its practicability and importance. And nothing, we trust, will deprive North Carolina of the distinguished honor which must accrue from the passage of such a Bill as the Committee of the Medical Society will prepare and present during the present session.

It is a notorious fact, that the rivalry existing between the various Medical Schools of the country, has resulted in such a depreciation of the standard of attainment for those who aspire to the Doctorate, as renders the diplomas granted no evidence of the qualification of their recipients. Hundreds are annually invested with all the prerogatives appertaining to this honorable degree, who are totally unprepared to discharge the responsible duties of their calling. Ignorance, immorality, and cupidity are stalking through the land cloaked in professional dignity—wearing the disguise of gentility and scholarship—licensed by a sealed diploma to impose on the credulity of the publie, and bearing their heads as loftily as if deception, peculation, and murder, had been legalized by some special decree of Heaven, and blotted from the catalogue of crimes. We simply desire to exclude from our profession, the unworthy men who are calculated to disgrace it. We wish to drive every base pretender,—every titled ignoramus,—every miserable huckster from the sacred temple of Medical Science, and to reserve its hallowed altars for

the special worship of the true and faithful only. We propose to apply such a test to those who pretend to be physicians, as the schools dare not attempt lest their popularity may be sacrificed, and as will settle the question of professional qualification to the entire satisfaction of the public. And we call upon all who are the friends of justice and fair dealing—who are the champions of truth and honesty—who are interested in the advancement of science and the promotion of human happiness—and who scorn the contemptible artifices by which arrogance and pretension seek to advance themselves at the expense of real merit, invoking them by every consideration which should actuate noble and honest hearts to stand by us in this emergency, to despise the contracted prejudices which fetter the spirit of reform, and impede its progress, and to strike one decisive blow for the best interests of an elevated profession, and for the imperishable honour of North Carolina.

The character of those who compose the State Society, is a sufficient guarantee that proper men will be appointed on the Board, and that their examinations will be conducted with all possible fairness. No sectional feelings can come in to influence the examiners for or against any candidate, for they will be selected from all parts of the state. No party prejudices can turn the scales in one direction or another, because those by whom they will be adjusted are honorable men, superior to such ignoble considerations, and loving both science and justice above the gaudy insignia of the loftiest position, and the dazzling lustre of the proudest victory whether of field or forum. No personal animosities can affect the decision of the Board, as every possible interest will be represented in it, and as all disposition to injustice on the part of either of its members would be checked and corrected by the others, even if it were possible for such meanness, treachery, and illiberality to find a place in the bosom of a man occupying so delicate and responsible a position. And as

nothing could prevent this rigid test of qualification from being fairly applied, none but the unworthy would be rejected,—none but the ignorant and shameless triflers, who had wasted instead of improving their opportunities, would come under the ban; and so far from this scheme resulting in the injury of any man, justice would thus find the sweetest vindication for itself, whilst the people would be saved from the machinations of the charlatan, or the blunders of the ignoramus. It is the representative's duty to defend the interests of his constituents—to throw safe guards around their property—to afford protection for their lives, and to promote their happiness and welfare to the extent of his ability. The establishment of this Board must secure these most desirable ends, if there be truth in Medicine; and hence, it becomes a matter of positive obligation for the Legislature to pass such a Bill as that one in which we feel so deep, so absorbing, so intense an interest. We have spoken warmly, too warm, perhaps, on this subject; but to us, it is a matter of such momentous and paramount importance, involving so largely the honor and welfare of the state, affecting so materially the essential interests of a noble and beloved profession, and pregnant with such serious consequences to that Association which has staked almost its very existence upon the success of this measure, that we have been able neither to weigh our words or polish our sentences, but we have spoken the truth without "fear or favor," and now leave the whole matter to the judgment of those who, we trust, will decide it in the same spirit. One fact we must mention in this connexion, as showing the inefficiency of the present system of Medical Education in the schools. From the official statements of the results of the recent examinations, by the independent Boards of the Army and Navy, it appears, that out of the *fifty-four* candidates, who presented themselves with regular diplomas, only *nine* were found qualified.

This teaches a most significant and instructive lesson, for it

shows, conclusively, that no reliance can be placed in the schools, and that it is absolutely necessary to establish some more rigid test of attainment, in order that the people may be protected against pretension and imposition.

OUR JOURNAL.

To the partial friends, both in and out of the profession, who have cheered us with words of encouragement and commendation, we return our most grateful thanks, assuring them that their kindness is fully appreciated, and that their cordial approbation will inspire us with fresh energy in the arduous work we have undertaken. With no experience as a Journalist, and under many disadvantagious circumstances, we have engaged in this enterprise, stimulated by an ardent desire to promote the interests of the Medical profession in North Carolina, and resolved to accomplish all that energy, zeal, and industry can effect in so worthy a cause. To know that our first efforts have proved acceptable to our friends, and that the physicians of the state have no reason as yet to feel ashamed of their organ, is a source of pride and pleasure to him who has staked his reputation on the venture, and has "burned the midnight oil," without stint or weariness, in the preparation of its pages. And however much we may be convinced, that partiality has influenced the judgment of many who have spoken kindly of the Journal, we cannot disguise the fact, that the favorable opinions thus expressed have delighted our heart, and that our editorial zeal has fresh inspiration from the assurances of satisfaction, with which we have been greeted from all parts of the country. The generous praises which have been lavished upon us, though most agreeable and encouraging, do not blind us to defects of our bantling; and with the indulgence of our readers, we promise

that all these things shall be corrected in the future, when our arrangements for publishing the Journal are more complete.

Some of our friends have promised to assist us, both by contributing regularly to the Journal, and procuring subscribers for it; which, by the way, would be very agreeable at the present moment. We return our thanks for this kind intention, but assure them at the same time, that a practical and substantial proof of their interest in our undertaking, would place us under much greater obligations. We shall be happy to receive communications on all subjects connected with Medicine, and sincerely hope that each one of the subscribers will feel himself under an obligation to report whatever of interest comes within the sphere of his experience. Many subscribers have already paid up promptly; and we beg leave to urge upon all who have neglected to comply with our terms in this respect, to forward their subscriptions immediately. Though a small matter to them individually, it is a very important one to the Editor of this Journal, who, though personally responsible to the publishers, can have no apprehension of ultimate pecuniary loss, since his subscribers are Physicians and Carolinians. With proper aid from the physicians of the state, the Journal SHALL BE all that is demanded by its friends, and apprehended by its enemies, if there be any. In consequence of the great demand for the first number of the Journal, we have distributed all of the August issue, which will account to some of our friends for our seeming neglect in not having forwarded "Back Numbers," as requested.

DR. JAMES B. McCAW.

It is with pleasure that we announce the appointment of this talented physician and accomplished gentleman to the Chair of Chemistry, in the Medical College of Virginia. He is well

known to the profession from his connection with the Virginia Med. and Surgical Journal, which, under his able management, has been rendered one of the most popular, successful, and scientific periodicals published in this country. He will prove a great acquisition to the school, and we wish him all possible success in his new career.

DR. THOMAS D. WARREN.

This gentleman has just offered a prize of one hundred dollars for the best Essay on any Medical subject, by the members of the present graduating class of the Virginia Medical College. This liberal offer has been gratefully accepted by the Faculty of that Institution, and arrangements made for awarding it properly at the close of the session. When wealth is thus made to minister to the cause of science, it becomes an honor to its generous possessor, and secures for him the respect of every right minded man.

THE MONUMENT TO JENNER.

The ingratitude of man is proverbial. It is a part of that corrupt nature which was impressed upon him at the fall. It is an essential and characteristic constituent of humanity itself. It is the principle which erects in every bosom an altar to self, and demands as votive offerings that love, reverence, and gratitude which the creature owes to his Creator alone. From it result man's rebellion, and God's indignation. Thence came the crime of the finite, and the curse of the infinite. Thus has life been planted with piercing thorns, and paved with jagged stones, over which the lacerated feet of the stumbler are ever hurrying him to his final doom. But it is not only of the favor which Heaven lavishes upon him that this sinful obliviousness is

manifested. How often does a single failure convert the patriot into the traitor, and expose him to the execrations of those for whom his body bears a thousand scars? The memory of the martyr dies before his appealing blood has dried upon the earth. The discoverer of the most sublime truth only shouts Eureka! to a thousand envious echoes which annihilate the sound. The genius, whose master mind unlocks the mysteries of nature, lives a mendicant, and dies an outcast. The statesman, whose far-sighted policy pilots the state through the fiercest storms and breakers,—on whose words of burning eloquence listening senators hang entranced,—whose name is a tower of strength against the enemies of his country, when "grim visaged war unfurls her crimson banners"—whose hair had grown white in the service of those he loved so well, is driven into disgraceful exile, his noblest deeds proclaimed the vilest crimes, and a price set upon his head, as if he were a bandit or an assassin. The poet, whose very thought is a heaven-born inspiration, drags out a miserable existence in some dilapidated garret. The philosopher, who harnesses the lightnings to the chariot of thought, is regarded for years as a trickster, and only when two mighty continents are bound together by his wonderous idea, succeeds in procuring a reward by appealing to the vanity of an imperial despot. The physician, who calmly enters the chamber of the plague, dissects the polluted subject without a tremor, records the results of his investigations for the benefit of his fellow man as deliberately as if in his own study, and dies as noble a martyr to science and humanity as ever wore the galling crown, sleeps in his forgotten grave, "unwept, unhonored, and unsung," whilst the story of his sacrifice is deemed a mere tradition by those for whom he died. These are not the world's heroes. These neither pander to the brutal appetites of their fellows, nor arouse their pride and vanity. These are not the favorites upon which posterity lavishes its adulation, and in whose honour tem-

ples are consecrated, mausoleums built, and monuments lifted to the sky. These are not the men who are honored with ovations, —over whose graves whole nations chant a requiem,—whose names descend to posterity immortalized in song, and embalmed in memory. To the warrior, whose sword is red with blood, whose ears are deaf from the din of the battle field, whose heart beats only to the music of the drum, and whose history is a record of glorious and gory victories, mankind accords its honors and its admiration. To the tyrant, who lives in an atmosphere of oppression, whose court glitters with all the gorgeous paraphernalia of wealth and majesty, and whose reign is a glorious panorama of that dazzling magnificence, of that startling pageantry, and of those resplendent trappings which fire the imagination and elicit the plaudits of the multitude,—men bow in reverential awe, and dedicate their proudest monuments. For these poesy weaves her most enchanting song, the sculptor's chisel bears its keenest edge, and the limner's art enriches itself from newer and deeper fountains of inspiration. In a word, men select for the objects of their grateful homage not those who have really benefitted and improved them, not those to whom they are under obligations for substantial and enduring favors, not those whom gratitude would prompt them to reverence and honor, but those who have gratified their pride, inflamed their vanity, pandered to their prejudices, or bound them as abject slaves to a despotic will or triumphal car. "Peace hath her victories not less renowned than war," but her noblest champions are forgotten in the first moments of success, and find themselves rewarded, not with triumphal arches and mighty cenotaphs, but with coldness, neglect, and forgetfulness from those for whom they have made the noblest sacrifices.

The history of the race demonstrates, that the benefactors of mankind are too often treated with indifference and disdain; whilst the world's most reckless scourges bask in the sunlight of

its approving smiles, and live upon the proudest page of its "eventful history." There can be no denying that this is the general rule in such matters, that the most glorious deeds sink into utter oblivion unless buoyed up by interest or romance, and that men are proverbially ungrateful to those who have served them faithfully. Fortunately, there are some exceptions to this ungenerous rule. Men, occasionally, seem ashamed of their ingratitude, and labor to atone for it. Nations forget the inglorious worship of their idols, to bow for a few brief moments at the shrine of genius, and of real worth. Human nature becomes satisfied with its own selfishness, and turns from it with loathing and disgust. An instance of this kind has just been recorded; for England has at last paid its long accumulating debt of gratitude to Dr. Jenner, and has erected a magnificent monument to his memory. And never, in our estimation, was a compliment more deserved than that just paid to the discoverer of vaccination, and which it is the design of this paper to chronicle. The conqueror wades through a sea of blood to the victory by which he is immortalised, crushing warm hearts beneath his feet, sacrificing holocausts of his fellow mortals to his grasping ambition, and living only for glory and dominion. The statesman shuns the threatening breaker or the frowning rock, and safely guides the stately ship to a quiet haven, where perfect freedom and unbroken security are enjoyed in such a manner as he deems essential to happiness and to his own fame. The astronomer discovers the erratic comet, divides the heavens into constellations, unfolds the laws which hold the planets in their spheres, and translates the praises which the revolving stars are pouring out incessantly to their maker,—thus enlarging the boundaries of human knowledge, and conducing materially to the comfort of man. But how can their services compare with those of that man who robbed the scourge of its power, who rendered the deadly breath of the pestilence as harmless as the summer's most

balmy zephyr,—who took the shaft from the hand of death, and saved the falling victim,—and who carried peace and comfort and security where fear and consternation had reigned before? What can the winning of a thousand battles compare with the arrest of a single epidemic, which numbers its victims by thousands, and penetrates every haunt where love conceals its treasure? What can the establishment of the wisest policy of which statesman ever dreamed, avail, when human life is at stake, and heaven seems indifferent to the issue? Of what account do men esteem the calculations by which the orbits of sun and stars and comets are determined, when death stands waiting to bear the cherished object of the heart's idolatry to that undiscovered country whose portal is the grave? And yet, Jenner is the discoverer of a process that has nearly paralysed a disease as loathsome as it is malignant, and which was once humanity's most dreaded scourge! And yet, this man, whose memory has slept for more than a century, originated a plan for securing immunity against small pox, which, from Greenland to Africa, is proclaimed almost infallible! And yet, this benefactor of the race, has thrown a panoply around those exposed to the terrible pestilence, through which "the destroyer" cannot break, or his arrows penetrate save by a mistake and an accident! Who, then, more worthy of remembrance by an intelligent people? Who more deserving the stately monument with which his countrymen have sought to honor his memory and to perpetuate his fame? Who has a better right to the admiration and the gratitude of the world, than he whose services can be calculated by enumerating the thousands saved from an untimely grave by his exertions alone? Surely, in thus remembering to be grateful, in thus honoring him to whom humanity owes so much, in thus building for him a cenotaph worthy of his genius, and of his native land,—something of the old record of ingratitude, which has rolled up against the race since the creation, is

blotted out, whilst one redeeming fact is chronicled which heaven approves. With that spirit of skepticism and depreciation so characteristic of the present age, some have attempted to detract from the achievements of this great man, by asserting that though vaccination protects against small pox, it originates typhoids, and that Dr. Jenner was not the discoverer of this important process. To us these charges are as absurd as the *animus* prompting them is contemptible. In the first place, typhoids have not increased *pari passu* with the process of vaccination ; secondly, they attack as many of the unvaccinated as of the vaccinated ; and thirdly, neither reason nor experience can connect the two by any comprehensible and legitimate link, save that supplied by the imaginations of those possessed of this idea. As regards the charge, that others had preceded him in the discovery of vaccination, a brief notice is necessary at our hands. We do not deny, that both the Peasant of Gloucestershire and Sir George Baker had some vague ideas of the protection which kine pox secured against variola: but it is equally true, that Dr. Jenner was the first to enquire into the subject fully, to recommend the process to the profession, and to substantiate its claims to universal confidence by a practical trial. He grouped the facts, deduced the legitimate conclusion from them, and then verified it by actual experiment. The charge that he was an imitator, is unjust and untrue. It is based upon the supposition, that a genuine discovery is revelation, and not a deduction from established premises—is an inspiration and not a logical sequence—is an instantaneous conception, evolved from the mind itself, without archetype or model, and not a development, gradual in its construction, and depending upon certain recognised facts for character and existence. Was Harvey less the discoverer of the circulation because Nemesius had connected the pulse with the movements of the heart, and Aquapendente demonstrated the existence of valves

in the veins? Was Stahl wanting originality because the dreams of the alchymists had paved the way for his great though erroneous theory? Was not Priestly entitled to the honor of having defined the law by which caloric and aeriform fluids are governed, although Newton had taken many decided steps in that direction, and Voltaire had well nigh established both the absorption of heat, the constitution of the atmosphere, and the oxydation of metals? Does not Lord Bacon's claim to be regarded as the father of modern philosophy, rest upon a foundation which neither lapse of time or change of circumstance can shake, although he simply reduced to a practical system the method of investigation which had been known to Leanardo di Vinci, Gilbert, and many others, for centuries? Curvier had been preceded by Hunter, whose views of fossil osteology were nearly as accurate and complete. Hume and Smith only followed the path which Quesnai, Gournay, and Turgot had marked out for them. Demosthenes had his Pericles; Virgil his Homer; and Raphael his Perugino. Columbus followed several successful discoveries on a more limited scale, when he called up a New World from the bosom of the mighty deep, in which he had possibly been forestalled. Napoleon took his ideas of the art of war from Frederick, who was himself an imitator. And the immortal Newton was guided to the goal of his great discovery by the light with which the genius of Cavalleri, Fermat, Galileo, and Kepler had illuminated the scientific world. In fact, the contracted nature of man's faculties prevents his attaining at once their maximum of excellence and improvement. The process by which the boundaries of knowledge are enlarged is a gradual one. The elucidation of a great truth demands patient and laborious plodding over the beaten track of human thought, on the part of the investigator. And the discovery of vaccination, like that of every thing else of great importance, was neither an intuition, a revelation, nor accidental surmise, but a

legitimate conclusion from certain facts previously established, and with which others were familiar. To Jenner belongs all the praise of having originated that most wonderful process, by which so many thousands of his fellow mortals have been rescued from untimely graves, and such an immense amount of human suffering prevented.

Then, let the tongue of envy be restrained in its work of detraction, whilst the name of this illustrious man is heralded to posterity, as that of a benefactor to the race! Let the mists of prejudice be scattered, that men may distinguish clearly the important service he has rendered to the world, and the debt of gratitude it owes him! And whilst a mighty nation is occupying itself in raising appropriate memorials to commemorate the deeds of its noblest sons, let it not forget to bow the knee in grateful homage before that one which bears the name of him whose claim to the most fervent gratitude of all mankind, was established neither upon the tented field, nor in the stately Senate House, but where disease seeks its victim, and the King of Terrors holds his ghastly Court!

Trafalgar Square will hold no worthier record of England's gratitude than this; and if a stone were added for every life that has been saved through his instrumentality, the monument thus raised to him would kiss the clouds, and lose itself amid the stars of heaven.

THE ORIGINAL DEPARTMENT.

That portion of this Number devoted to Original Communications is very deficient, much to our regret and disappointment. Of all the reports read before the Convention, we have only received such as have been published, whilst the friends who promised articles for the present issue were prevented from preparing them by a pressure of professional work. For the future,

there will be no difficulty on this point, as we have made arrangements of the most satisfactory nature with some of the most accomplished writers in the state. At the same time, we shall be pleased to have all of our friends contribute to the Journal.

THE VITAL POINT.

It is well known that M. Flourens has long since designated a particular point in the cerebral mass as the seat of that power which presides over the respiratory and circulatory systems. According to his statement, the destruction of this point invariably occasions an instantaneous suspension both of cardiac and pulmonary movement, and the immediate death of the animal without pain or convulsions. This has been esteemed by many as the most positive evidence of the truth of those doctrines, which, since the days of Hippocrates himself, have found a multitude of champions assuming the name of vitalists, and asserting the existence of a specific force essential to life,—presiding over the various component organs, and preserving the animal mechanism in its normal state of equilibrium. Believing that the arguments of their more material opponents, who made the scalpel the test of everything, were fully answered by the researches of Flourens, they exhumed the memories of Van Hellmont, Hoffman and Stahl, honored them with orations, and proclaimed them the only lights which had illuminated the medical world. Though affecting for years a sovereign contempt for that system of vivisection, which has really accomplished so much of practical importance both for Physiology and Therapeutics, they became at once its warmest friends and most zealous advocates. Though bound only by a sort of traditional regard to the abstractions of an effete theory, one stroke of the knife awakened them to new life and energy; and though ridiculed as laggards in the great march

of professional improvement, they suddenly found themselves transformed, as they supposed, into pioneers and prophets.

More recent and accurate researches however, are about to effect another revolution in Medicine; for Séquard, following the lead of the learned and laborious Bernard, has overturned the whole theory of Flourens, and demonstrated that the "Vital Point" is no vital point at all. The following are his conclusions, as first published in the *Journal de la Physiologie.*

1. Death is not always the immediate result of ablation of the vital point.

2. When death takes place suddenly after this ablation, it is due in a great measure to the sudden arrest of the movements of the heart resulting from irritation of the spinal marrow.

3. Irritation of the surrounding parts produces sometimes the arrest or enfeeblement of the heart's action, just as ablation of the point itself.

4. After dividing the pneumograstic nerve, the destruction of the vital point never occasions a sudden suspension of cardiac movement.

5. It is not because of the ablation of the vital point that respiration sometimes ceases, but rather on account of the irritation of the spinal marrow.

6. Irritation of the adjacent parts sometimes arrests respiration even when the "vital point" is not wounded.

7. Respiration and circulation can be performed with force and regularity for a number of days after ablation of the "vital point," from which it is evident that this part of the cerebral mass is neither the source of vital power, nor the main spring of the respiratory apparatus.

8. Voluntary movements, and the sensorial functions, are often uninterrupted, even after the destruction of the "vital point."

9. The "vital point" appears not to be essential to life.

COAGULATION OF THE BLOOD.

Dr. Benj. W. Richardson, of London, has just published his Essay on the Coagulation of the Blood, for which the Triennial Astley Cooper prize was awarded a few years since. After an immense number of experiments, conducted with great care and patience, he concludes that blood coagulates because of the escape from it of ammonia. To us, there is more of the *post hoc* than the *propter hoc* in this explanation of the phenomenon.

PROFESSIONAL CHANGES.

Dr. Dickson, of Charleston, has been elected to the chair of practice in the Jefferson Medical College, made vacant by the death of the late learned and excellent Dr. J. K. Mitchell. The acknowledged ability and eloquence of Dr. Dickson demonstrate the wisdom of selecting him for the post, and furnish a sure guarantee that the interests of the school will suffer nothing in his keeping. We hear that Dr. P. C. Gaillard has been appointed Dr. Dickson's successor in the Medical College of the State of South Carolina.

Dr. James B. McCaw, of Richmond, Va., we are pleased to learn, has been chosen Professor of Chemistry in the Medical College of Virginia. We have known Dr. McCaw long and intimately, and feel assured that no better selection could have been made. He has edited the Medical and Surgical Journal of Virginia for several years with a degree of abilitiy and independence which has won for him many warm and admiring friends, throughout the South especially. We wish him all possible success in his new vocation.

THE INDUCTION OF PREMATURE LABOR.

Among the multitudinous places which have been suggested for the accomplishment of this important end, not one has

proved so efficient in itself as to secure the universal confidence of the profession. The following are the processes most in vogue at the present time :—

1. External abdominal frictions, and the internal exhibition of Ergot, advised by D'Outrepont and Ulsamer.

2. Passing electricity or galvanism through the walls of the womb noticed by Churchill.

3. Tamponning the vagina as professed by Scholler.

4. Dilation of the neck of the uterus by means of a sponge, according to the directions of Brünninghausen.

5. The introduction of a sound into the cavity of the womb recommended by Simpson, Hopkins, and Messner.

6. Application of the cold douch to the os tincæ, as practised by Kiwisch and modified by Cohn.

7. Titillation of the nerves distributed to the mammary glands, &c., proposed by Scanzoni.

8. Directing repeated currents of carbonic acid gas through the vagina, in order to excite the contractility of the muscular tissue of which the uterus is composed.

As there is no antagonism between several of these methods, they may be employed simultaneously and as mutual adjuncts. The plan of throwing cold water upon the neck of the uterus has met with especial favor in France, and at this moment ranks among its friends both Dubois and Velpeau, whose judgment we are accustomed to regard as almost decisive of every thing connected with obstetrics. The carbonic acid method is advocated by Séquard, of France, Simpson, of Edinburgh, Scanzoni, of Germany, and Braun, of Vienna, all illustrious men in their respective departments. Scanzoni, of the University of Würzburg, claims the honor of this discovery, and, perhaps, deserves it, so far as the practical application of the remedy is concerned ; but to Séquard belongs all the credit of having eliminated the physiological truth upon which this process is founded. He established by a series of most interesting experiments that there is

no such thing as spontaneous action in contractile tissue, but that the womb during pregnancy becomes constantly more irritable, until at length the carbonic acid of the blood affords a sufficient stimulus to excite its contractions, which when once commenced grow stronger continually, because of the reflex actions thereby induced. Scanzoni immediately suggested the expediency of substituting carbonic acid gas for ergot, and of employing it for the purpose of inducing premature labor. In two instances, one reported by Scanzoni, the other by Simpson, this agent succeeded perfectly in exciting the most powerful uterine contractions, when other means had failed, whilst in many cases it seemed to assist the usual remedies in affecting the desired result. The facility with which carbonic acid gas can be employed, and the vast importance of such a remedial agent in exciting the womb when inert, in producing abortions, and in arresting uterine hemorrhage, must secure for it such a thorough trial as will test the accuracy of the views advanced by its advocates, and determine its value to the medical profession. Our own physicians can assist in the solution of this important problem, for carbonic acid gas may be easily generated, and the most favourable opportunities are constantly presenting themselves for its application.

RE-VACCINATION.

A paper on re-vaccination was recently presented to the Academy of Medicine at Paris, in the name of Dr. Vlemincks, one of its corresponding members, The author gives an account of the experiments instituted at Guad by Dr. Denobele, with a view to ascertain the advantage arising from a repetition of vaccination at the various periods of life. The results arrived at are, that between the ages of 20 and 40 re-vaccination only takes effect upon 4 out of 100 patients, while the proportion of those on whom it takes effect between the ages of 40 and 60 is

23 per cent.; and between the ages of 60 and 70, 54 per cent. The consequences deduced from these facts are:—

1. That until the age of 25 re-vaccination is useless.

2. That from that age to 35 it produces useful effects upon a very small number of persons, and that consequently it need not be very strenuously recommended at that period of life.

3. That from the age of 35 and upwards, it becomes really prophylatic, and therefore necessary.

4. That when vaccination has not taken effect at a certain period, this is no reason for concluding that it will not take effect at some future period.

DR. JAMES, THE RETIRED PHYSICIAN.

We find the advertisement of this most notorious swindler in some of the papers of this state, and we take this occasion to warn the public against his base machinations. Of all the miserable quacks with which this country has been disgraced, this man is the most impudent and contemptible. He is notorious for his villany from one limit of the country to the other. He has been exposed and disgraced in every city of the Union. He has achieved a distinction as an imposter, a poisoner, and an *abortionist*, which must sink him too deep in infamy even for the imitation of the most degraded charlatan who ever sold his soul for a dollar. And, in our opinion, the "sands of life" which have been so long "running out," are yet to be exhausted upon the gallows, provided he can get a hangman to disgrace himself by sending so contemptible a specimen of humanity to settle his last account with the deluded victims he has already dispatched to another world.

We sincerely hope the press of this state will not permit itself to be used for the base purposes of this shameless charlatan, but that it will rise superior to all selfish and pecuniary consideration, and set an example in this matter, which, whilst it

reflects honor upon the editorial corps of Carolina, will teach impertinance a lesson that will canker and be remembered.

THE THERAPEUTICS OF NATURE.

Therapeutics, it is generally admitted, is one of those branches of medical knowledge in which there exists the greatest amount of errors, defects, and prejudices; and where experience is alike most difficult and deceptive. The mistakes, that are daily made, are often far greater than we are willing to admit. And then, how little do we know of the extent of Nature's own curative resources, and how much she will often effect, unaided by, or perhaps even in spite of, the interference of art. In the practice of our profession, it should ever be borne in mind that we have to do, not only with the existing disease, but also with the conservative and reparatory efforts of Nature,—which, by itself, is often sufficient to produce a cure. Hence those reputations of medicines and modes of treatment, which so rapidly start up and are as quickly forgotten; and hence those false gods of Therapeutics, that to-day are adored and to-morrow are despised.

DEMISE OF GERMAN CELEBRITIES.

The literary world of Germany has to lament some fresh losses. Professor Franz Kuglar, known by his many excellent works on the history of art, died suddenly on the 18th March, at Berlin, where he had filled for some years an important position in the Ministry of Public Instruction. Kuglar was born on the 19th January 1808, thus reaching an age of only fifty years. A few days before, on the 16th March, the natural philosopher, Gottfried Nees von Esenbeck, died at Breslau, at the age of eighty-two years. In 1817, he was named Professor of Botany at the University of Erlangen; was chosen, in the same year, President of the Imperial and Royal Academy of Natural Philosophers, at Vienna; lived, from 1818 to 1830, as a public

lecturer at the University of Bonn, and was then called in the same capacity to the University at Breslau. In 1848 and 1849 a partisan of the revolutionary movement, he, in 1852, was dismissed without a pension from public service. In consequence of this the last years of the veteran were passed in indigence and want. He parted with his valuable liabrary and scientific collections, and had, besides, to recur to the assistance of friends and former pupils for the modest maintenance of a rapidly declining life.

SUPPOSED ANTIQUITY OF THE HUMAN RACE.

In a paper read before the Royal Society, on 11th February, Mr. Horner, giving an account of researches undertaken near Cairo, with the view of throwing light upon the geological history of the alluvial land of Egypt, stated that a fragment of pottery now in his possession, an inch square and a quarter of an inch in thickness, the two surfaces being of a brick red colour, had been obtained from the lowest part of a boring, 39 feet from the surface of the ground. The entire soil pierced consisted of true Nile sediment; and allowing the estimated rate of increase of deposited sediment of 3½ inches in a century to be correct, this fragment having been found the depth of 39 feet, is the record of the existence of man 13,375 years before A.D. 1858—11,517 years before the Christian era—and 7625 years from the beginning assigned by Lepsius to the reign of Menes, the founder of Memphis—of man, moreover in a state of civilization, so far at least as to be able to fashion clay into vessels, and to know how to harden it by the action of strong heat.

CHANGES IN THE HOSPITALS OF PARIS.

The death of Baron Philip Boyer, one of the Surgeons of Hotel Dieu, (and son of the great Philip Boyer,) which took place in April last, has given rise to many changes in the surgical service of the hospitals of Paris. M. Robert, the chief surgeon

of Beaujou, succeeds to Boyer's place in Hotel Dieu. Malgaigne, Prof. of Operative Surgery in the School, and the surgeon of St. Louis, is now at Beaujou in Roberts' place. Richet, a young man of much promise, and for some time the surgeon at St. Antoine, is transferred to St. Louis. Morel-Lavalée, Surgeon of Lourcine, takes Richet's place at St. Antoine. Those of our readers who have had the pleasure of spending some time in Paris in following the service of the above named gentlemen, will no doubt have many pleasant memories called up in reading this little article.

FECUNDITY.

The facts relating to the fecundity of women are so marvelous, that they might well inspire doubt, if they were not accompanied with so many details. We read in the Magazine of Natural History, etc., of Moscow, (4th part, p. 80, 81,) the following fact: On the 21st of March, 1755, the peasant Kirilow was presented, along with his wife, to the Empress. This peasant was married for the second time at the age of 70. His first wife was brought to bed 21 times—4 times of 4 infants at a birth, 7 times of 3 infants, and 10 times of twins—in all 57 children, then alive. The second wife had already been delivered 7 times, once of triplets, and 6 times of twins—in all, 15 living children. This astonishing fecundity has been observed in other cases in Russia. Thus the peasant Gastorown, of the village of Dolgom, was delivered on the 1st of March, 1854, of 5 infants, two boys and three girls, who all died the same day. At Torgowa the wife of Kalmuck had a quadruple birth; one of the children died the next day. In the village of Iwokina, 26th May, 1854, a peasant had a quadruple birth, all the children surviving; and in November, 1854, another similar birth is recorded in the government of Vladimir. Many other examples are given.—*Gaz. Hobdomadaire.*

USELESSNESS OF KNOWLEDGE.

It has not added to my personal comfort to know to a decimal fraction what proportion of red earth I may expect to find in my cocoa every morning ; to have become knowingly conscious that my coffee is mixed with ground liver and litmus, instead of honest chicory ; and that bisulphuret of mercury forms the basis of my cayenne. It was once my fate to have a friend staying in my house who was one of these minute philosophers. He used to amuse himself after breakfast by a careful analysis and diagnosis of the contents of a tea-pot, laid out as a kind of *hortus siccus* on his plate. "This leaf, now," he would say, "is fuchsia, observe the serrated edges, that's no tea leaf—positively poisonous. This, now, again, is blackthorn, or privet—yes, privet ; you may know it by the divisions in the panicles ; that's no tea leaf." A most uncomfortable guest he was ; and though not a bad companion in many respects, I felt my appetite improved the first time I sat down to dinner without him.—*Blackwood's Magazine.*

The following epitaph is on a tombstone, at Pittstown, Rennselaer county, New York : Ruth Sprague, daughter of Gibson and Elizabeth Sprague, died Jan. 11th, 1846, aged 9 years, 4 months, and 5 days. She was stolen from the grave by Thomas L. Shaw, and dissected by Dr. Roger B. Wilson, of Hoosic, N. Y., from which her mutilated remains were obtained, and deposited here.

Her body dissected by fiendish men,
Her bones anatomized ;
Her soul, we trust, has risen to God,
Where few physicians rise.

VALUE OF A YOUNG LADY'S TEETH.

The Paris courts value a young lady's teeth at 8,000 francs. An English governess was recently knocked down by a carriage,

and lost by the accident all her teeth. She brought on an action of damages, and the tribunal awarded that amount.—*American Medical Monthly.*

THERAPEUTICAL HINTS.

Cold foot-baths at bed-time are a valuable remedy in that sleeplessness caused by loss of blood. Brandy drinkers can generally bear very hot baths, the peripheral nervous system being dulled in them. In stomatitis, peppermint drops allowed to dissolve in the mouth produce a feeling of coolness, and are a good palliative. The tincture of cantharides, judiciously employed in retention of urine from cold, will often obviate the necessity of catheterism. In ganglions, acupuncture is an easily managed, little painful and generally successful mode of treatment, to be preferred to subcutaneous incision.—*Pauli.*

WAYS TO COMMIT SUICIDE

1. Wearing thin shoes on damp nights in rainy weather.
2. Building on the air-tight principle.
3. Surfeiting on hot and very highly stimulating dinners.
4. Beginning in childhood to drink tea, and going on from one step to another, through coffee, chewing tobacco, smoking, and drinking.
5. Marrying in haste, getting an uncongenial companion, and living the rest of your life in mental dissatisfaction.
6. Following an unhealthy occupation, because money can be made by it.
7. Tempting the appetite with niceties when the stomach says no.
8. Continuing to keep in a continual worry about something or nothing.
9. Retiring at midnight and rising at noon.
10. Gormandising between meals.
11. Giving away to fits of anger.
12. Trying always to insult or injure somebody.——*American Medical Monthly.*

CHLOROFORM IN VOMITING IN CONSUMPTION.

In vomiting of consumptives consequent upon fits of coughing, Dr. Baron advises the use of chloroform. "He gives twelve drops in a gummy julep in the course of twenty-four hours, in some cases still smaller doses relieve."—*Dublin Med. News.*

PROLAPSUS OF THE FUNIS.

Dr. T. Gailand Thomas, of New York city, recommends the following rules for prolapsus of the funis :—

1st. If the chord is detected before the waters have broken, let no manual assistance be offered, but place the woman at once in position, and trust to this for its return to the uterus.

2nd. Should the waters have flowed away, and left the chord below the head, place the woman in position, and push it up with the hand if practicable, or with a *port-cordon*, consisting of a gum-elastic catheter, with a tape passed through it, if not so.

3rd. Let no manipulations be commenced until the woman be placed in position.

4th. That in returning the chord, the whole hand be introduced into the vagina ; this is essential to success ; the fingers alone will fail.—*Boston Med. Journal.*

LAWS RELATING TO THE DYNAMIC PHENOMENA OF THE ANIMAL ECONOMY.

The laws of which we are about to treat are based upon an immense number of facts, some of them observed by myself, others noticed in, or dispersed through various books and journals of scientific research, I have collected those facts and will produce them successively in the following numbers of this journal, whose aim shall be the demonstration of the laws, to the annunciation of which I at present confine myself.

Having in my writings constant occasion for the use of them I felt how convenient it would be to have those laws altogether, besides that it would be thus readily seen how they complete and explain one another, and as they are the expression of a general physiological theory, I have concluded that they shall be placed at the head of this journal.

I should say that a great number of physiologists, and more particularly Fontaine, Delarche, Reil, Adamucee. Broupais, Reveillé, Pause, J. Muller, J. Paget, W. Carpenter, and above all, M. Buchey, have demonstrated, or pointed out the existence of some of these laws.

Law 1. Nervous action, muscular contraction, the discharge of the galvanic apparatus of fish, the galvanic currents of certain organs, the galvanic discharge which accompanies muscular contraction, and *probably*, also, the phosphorescence of certain animals, and the movement of vibratiles ciliæ, are the phenomena whose existence seems to be essentially accompanied by an organic change, which nutrition alone can repair.

Law 2. The power of producing these phenomena tends to increase in direct ratio with the quickness of circulation, with the abundance of blood, and with its richness in general, and special nutritive material.

Law 3. During repose, that is to say the period in which these phenomena do not exist, the tendency to augmentation, in the producing faculty encountering no obstacle that augmentation is effected.

Law 4. This increase is accomplished in a manner much more rapid immediately after the production of a phenomenon than after a long repose, provided the normal conditions of nutrition exist.

Law 5. The power of producing the phenomena mentioned above, depends upon a special structure of the tissues, which are the seat of it, in such a manner that when the most part of these tissues remain inactive during a very long time, which alters their nutrition, and consequently their structure, it results that this faculty gradually diminishes, and sometimes even entirely disappears.

Law 6. The faculty of producing the phenomena increases in direct ratio with the duration of repose to certain limits, but when these are exceeded, diminishes in direct ratio with the duration of repose.

Law 7. In respect to many of the generative tissues of these phenomena complete repose almost never exists, the phenomena take place, apparently, spontaneously, and with as much more energy as the temperature is elevated.

Law 8. The faculty of producing these phenomena diminishes during the period of production in direct ratio with their intensity and duration, and in inverse ratio with the energy of the nutritive reparation which takes place concurrently.

Law 9. Reparation labouring in an uninterrupted manner to compensate the loss which attends action, it is not possible as long as circulation and respiration continue to effect the complete disappearance of the power of producing the greater part of these phenomena, or rather, of the very time when it has been made to disappear, reparation causes it immediately to return.

Law 10. The expenditure by action being followed by great activity of restorative nutrition, it occurs that if the action is frequently renewed there exists an excess of nutrition, and a considerable augmentation of the acting faculty.

Law 11. Nutrition will continue to take place in many of the tissues without the nutritive liquid circulating in them, and provided they contain a certain quantity of it, the acting faculty may increase after the expenditure of action in parts where there is no more circulation.

Law 12. Although the circulation, and therefore the reparation may be more active in summer than in winter, the acting faculty becomes more considerable in winter than in summer, because the spontaneous expenditures mentioned above, as well as the expenditures owing to exterior excitement, or to the will, are much less considerable, principally among cold-blooded and hybernating animals.

Almost all the preceding laws may be summed up in the following general law:—

The energy of the faculty possessed by the animal tissues of producing dynamic phenomena, described above, seems to be in direct ratio to the intensity, and duration of the normal nutritive reparation, and in inverse ratio to the intensity, and duration of existence of those phenomena.—*Journal de la Physiólogie.*

VERATRUM VIRIDE.

The use of veratrum viride is growing more common, and continues to gain favor, not without, however, some prejudices and fears as to its poisonous effects upon the system.

An opinion has obtained, in some regions, but it is more popular than medical, that the remedy, as applied in inflammation of the lungs and its concomitants, merely reduces the pulse without controlling the inflammation, and thereby depriving the physicians of the thread by which he is to direct his steps from the labyrinth. The fear of the hurtful effects has a good controlling influence in the use of the remedy, and the probability is the results will be much more certain and the value of the remedy much more certainly established.—*Nashville Med. Jour.*

MENSTRUATION DURING PREGNANCY.

Dr. Elsasser, who has been making a series of observations on this subject, has concluded that this aberation from the normal state of things which should exist in parturient females is more frequent than is generally suspected, and that it is more frequent multipara than primpara and in the sorlien month than the latter months of pregnancy; also, that the development of the child was found normal in at least three-fourths of the cases, and the duration of pregnancy was normal in more than two-thirds of the cases.—*Nashville Med. Jour.*